gri Doc Can Ag Canada Agriculture Dept. 07.
"Marketing Cerisce: Economica Division.

CONSUMPTION OF FOOD BY
FARM HOUSEHOLDS IN
NEW BRUNSWICK
1945-1946

٧, ١,

CAI DA 21 -52C55

C. I. JOHNSTON & L. E. DRAYTON



# DEPARTMENT OF AGRICULTURE

Economics Division

Marketing Service

Ottawa, October, 1952



CAINA 21-52C55

# FARM HOUSEHOLDS IN NEW BRUNSWICK 1945-1946

C. I. JOHNSTON & L. E. DRAYTON



# DEPARTMENT OF AGRICULTURE

Economics Division

Marketing Service

Ottawa, October, 1952

CONSTRUCTION OF BOOK BY

FARM HOLESPEEDEDS IN

NEW DRIFT STREET

1945-1946

C. I. JOHNSTON & J. P. WINTERS

Samuel

planopore in statement

half or a state of the

STORY TWO WARDS

### FOREWORD

This study was undertaken by the Economics Division, Canada Department of Agriculture and the Nutrition Division, Department of National Health and Welfare in co-operation with the New Brunswick Departments of Agriculture and Health. The field work was carried out by personnel of the co-operating agencies with assistance from the Consumer Section of the Canada Department of Agriculture and from the New Brunswick division of the Canadian Red Cross Society. The sample was designed with the guidance of the Dominion Bureau of Statistics. The technical advice received from many members of the staffs of other divisions of both the Canadian and provincial governments is also gratefully acknowledged.

To the co-operating farm families, and particularly to those who completed reports in the winter, special thanks are extended.

Digitized by the Internet Archive in 2022 with funding from University of Toronto

# TABLE OF CONTENTS

<u>1</u>	Page
INTRODUCTION	1 1 1 2
Fruit Other Than Citrus  Leafy, Green and Yellow Vegetables  Vegetables Other Than Leafy, Green and Yellow  Pickles	
CALORIE AND PROTEIN VALUES OF FOOD CONSUMED  Adequacy of Calorie Content  Food Groups as Contributors of Calories  Adequacy of Protein Content  Food Groups as Contributors of Protein  Concentrated Food Supplements	14 14 15 15
RETAIL VALUE OF FOOD CONSUMED	17
Retail Value of Home Produced Food as a Percentage of That of All Food Number and Age of Children National Origin Economic Level	19 21 23 25 27

## TABLE OF CONTENTS - Cont'd

	Page
HOME PRODUCED FOOD CONSUMED	
by Food Groups	
Type of Farm National Origin	34
Economic Level	36
Comparison of Retail and Farm Values of Home Produced Foods	
HOME PRESERVED FOODS	
Household	39
SUMMARY	40
APPENDIX Survey Periods	
Units of Consumption	42
Conversion Factors	
Classification of Grain Products	. 44

### INTRODUCTION

Canada produces enough of most of the basic categories of food to meet the needs of the Canadian people and to permit of a substantial volume for export. Levels of food consumption, if the nation as a whole is considered, are relatively high. Considerable information on national and per caput consumption is available. 1/ Less is known, however, about dietary levels in different parts of the country and among different groups of people. Comparatively little is known, for instance, about food consumption by farm families.

The Canadian Council on Nutrition, which included representatives of Federal and Provincial Departments concerned with health, the Canada Department of Agriculture and other agencies, governmental and non-governmental, interested in the subject of nutrition recognized that such information was needed for Canada, and for some years urged that data relating to the diets of farm families be obtained. Accordingly, a survey of food consumption on farms in the Maritime Provinces was undertaken in 1945-46. This report deals with the New Brunswick section of the study. The purpose of the study may be stated briefly as follows:

- (a) To measure as well as possible with the means available, the adequacy of the diets of the farm households in general, and of particular groups among them;
- (b) To ascertain the extent to which farmers supplied their own food.

<u>Background of the Survey</u>.- Some of the earliest settlements in Canada were established in New Brunswick and the agriculture of the province has a long history. In fact, both the number of occupied farms and the area of improved farm land had reached a peak by about 1891.

Even though the depression of the thirties had lowered the income level and living standards of New Brunswick farmers it tended to increase farm population. Many young people, who normally would have left the farms, remained during the depression because of lack of alternative opportunities, and unemployed workers returned to the land. However, by 1945 when this survey was begun, improved opportunities in industry together with requirements of the armed services had drained away much of the surplus labour on New Brunswick farms. Improved prices for agricultural, forest and fish products

Data on food consumption in Canada have been published in a variety of reports of the Department of Agriculture, the Dominion Bureau of Statistics, the Department of National Health and Welfare, and other agencies. Comparisons with other countries have been made in reports of the League of Nations, Combined Food Board of the United States, the United Kingdom and Canada, and the United Nations.

raised the economic status of the remaining farm population. As a result, the diets of farm families at the time of the survey were probably adjusting themselves to better income conditions.

Rationing of butter, meat, sugar and of certain foods containing sugar, is another factor which may have influenced diet at this time. In addition, conditions were unfavourable in 1945, and to some extent in 1946, in New Brunswick for the production of most of the principal fruits and vegetables. This may have reduced farm consumption of these foods by reducing available supplies.

Scope and Method. The data for this study were obtained by interviewing members of 256 farm households in the province of New Brunswick. While the farm operator was interviewed in many instances relative to business operations, the housewife provided information regarding the use of food. The first series of interviews was taken in the fall of 1945, between September 27 and November 6. During the winter, mail questionnaires were sent out to the original households interviewed, and reports completed between February 11 and April 14 were received from 148 of them. In the summer of 1946 between July 16 and August 15, the survey was repeated and records were taken from 236 of the original households. In each period detailed data were secured covering the diet of the family during the week immediately preceding the time of completion of the questionnaire. At the time of the first interview an additional questionnaire was taken covering a variety of characteristics of the farm business and household in order to relate them to the diet.

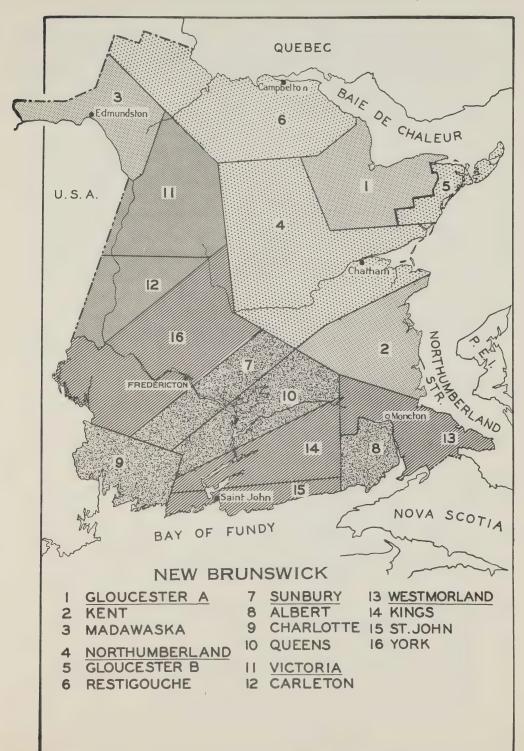
The method of sampling was planned with guidance from the Dominion Bureau of Statistics in such a manner as to be as representative as practicable of the farms in the province. This sample was based on data of the 1941 Census. Use of the census definition of a farm resulted in the inclusion of many farms where the main sources of income were occupations other than farming, especially fishing and forestry.

For the purposes of sampling, the 15 counties of New Brunswick were divided into five groups with similar types of farming and other pertinent characteristics; in so doing, Gloucester was split into two sections (Chart 1). Then one area was selected from each group and allocated a number of interviews in proportion to the total number of farms in the group of counties which it represented.

### FOOD CONSUMPTION OF NEW BRUNSWICK FARM HOUSEHOLDS

The Dominion Bureau of Statistics reports each year the amount of food per person entering into civilian supplies in Canada. The procedure in estimating this is to take available supplies, including production and imports, adjusted for change of stocks, exports, marketing losses and industrial uses, and to divide by the total population. All calculations are made at the retail stage of distribution, except those for meat, which are worked out at the wholesale stage. The amounts of food actually eaten would be somewhat lower than indicated because of losses and waste, occurring

CHART 1 - REGIONS REPRESENTED BY SURVEY AREAS, NEW BRUNSWICK FARM HOUSEHOLDS, 1945-46.





after the products reach the hands of the consumers.

For comparison with Dominion Bureau of Statistics estimates of Canadian consumption, the foods were classified into 14 main groups, and converted, where necessary, to the forms indicated in brackets below:

1. Dairy products, excluding butter: (milk solids)

2. Meats: (carcass weight)

3. Poultry, game and fish: (edible weight)

4. Eggs: (retail weight)

- 5. Fats and oils: (fat content)
- 6. Sugars and syrups: (sugar content)

7. Potatoes: (retail weight)

- 8. Pulses and nuts, shelled: (retail weight)
- 9. Tomatoes and citrus fruits: (fresh equivalent retail weight)
- 10. Fruit other than citrus: (fresh equivalent retail weight)
- 11. Leafy, green and yellow vegetables: (fresh equivalent retail weight)
- 12. Other vegetables: (fresh equivalent retail weight)
- 13. Grain products: (retail weight)
- 14. Beverages: (tea, retail weight; coffee, green beans; cocoa and chocolate, raw beans).

Included in an additional group were baking accessories, flavourings, seasonings, jelly powders, and a few food mixtures of which various ingredients were not present in large enough quantity to warrant the labour of allocation to the main groups.

Estimates of the average weekly consumption of each of these classes of foods by farm people in New Brunswick were prepared by taking weighted averages of the quantities reported in the three weeks of survey. Each week's data were weighted according to the number of months which it was considered the week would most closely represent: fall 3, winter 5 and summer 3. In the following sections rates of consumption for Canada all pertain to the crop year 1945-46.

Dairy Products (Excluding Butter).— The average weight of the milk solids obtained per person per week from dairy products, excluding butter, by the New Brunswick farm households was approximately one and one-third pounds. This was only slightly lower than the consumption estimated for all Canada. 1/(Table 1) (Chart 2). About one-third more milk solids were consumed per person in the summer than in the winter when a larger proportion of the farms did not produce milk. The use of greater quantities of skim milk and buttermilk, canned milk and cheese compensated in some measure for the shortage of milk and cream in winter.

Fluid whole milk was naturally the chief source of the milk solids consumed, accounting for 70 per cent. Other dairy products provided milk

<sup>1/</sup> The Dominion Bureau of Statistics estimate of milk solids for 1945-46 does not include skim milk and buttermilk. Consequently, the actual difference in dairy products consumption was somewhat greater than suggested by the figures in Table 1.

Table 1.- Weights a/ of Foods Consumed per Person per Week, New Brunswick Farm Households, 1945-46, as Compared with Weights Available to Civilians in Canada, Year Ended June 30, 1946 b/

	0		Pounds c	/per Per	rson per Weel	k
	New Brunswick					
			0 0	0	0	0
	:		0 0	0	: Average	: Canada
	:October-				: as	: year
					espercentage	
	: 1945	1946	: 1946	•	of Canadia	n:June 30,
Foods	0 (				:consumption	
		- po	unds -		- per cent	- pounds -
DAIRY PRODUCTS	0					
(Excluding butter) $\underline{d}$	1.42	1.15	1.51	1.33	97	1.37
Fluid whole milk	8.17	5.97	8.89	7.43	-	9.16. <u>e</u> /
Fluid cream	. 48	.31	.80	. 49	-	000
Skim and buttermilk	1.65	1.62	.60	1.37	-	***
Canned whole milk	.08	.21	.05	13	48	.27
Cheese	.10	.15	.07	.11	92	.12
MEATS <u>f</u> /	1.43	1.92	1.49	1:65	63	2.62
Beef f/	.71	.99	.91	.88	70	1.25
Veal f/	.02	.04	۵3.	.03	12	. 26
Lamb and mutton f/	.07	.01	.04	.04	50	.08
Pork (excluding lard)						
Total $\underline{\mathbf{f}}/$	.60	.84	. 48	.67	73	.92
Cured $\underline{\mathbf{f}}/$	. 29	.34	.21	. 29	Cupa	_
Offal g/	.02	.05	.03	.03	27	.11
POULTRY, GAME AND FISH q	/ .69	.68	.50	.64	125	.51
Poultry h/	.35	.27	.11	.26	54	. 48
Game i/	.18	.02	.00	.06	75	.08
Fish, Total g/	.37	. 53	.44	. 46	271	.17
Cured g/	.23	.42	.13	. 28	-	-
EGGS	. 49	.57	。64	. 56	88	.64
FATS and OILS j/	.70	60	.40	4.6	102	45
Butter		.60		.66	119	65
Dutter	.64	. 44	.65	. 56	119	. 47

a/ Seasonal averages weighted as follows: fall, 4; winter, 5; summer 3.

b/ Source: Dominion Bureau of Statistics. The Canada Year Book 1947. Ottawa, 1947. pp. 776-778.

c/ Retail weight except where otherwise stated.

d/ Milk solids.

e/ Including whole milk equivalent of fluid cream and that used in ice cream.

f/ Carcass weight. Edible weight of offal included in "Meats".

g/ Edible weight.

h/ Dressed, not drawn, weight.

i/ Dressed weight. Weight for Canada estimated by Department of Mines and Resources.

j/ Fat content. - Continued -

Table 1.- Weights <u>a</u>/ of Foods Consumed per Person per Week, New Brunswick Farm Households, 1945-46, as Compared with Weights Available to Civilians in Canada, Year Ended June 30, 1946 <u>b</u>/ - Continued

0					per Week	
		N	ew Brun	swick		0
0	4		6	0	: Average	:Canada
	October-				: as	: year
					e:percentage	
	1945 :	1946	: 1946		of Canadia	
Foods :			0	<b>6</b>	:consumption	
		- poun	ds -		- per cent	- pounds
SUGARS AND SYRUPS k/	1.05	1.16	1.12	1.11	75	1.48
Sugars <u>l</u> /	. 53	. 54	.61	. 55	-	-
Molasses	. 57	.67			_	-
Jam, jelly and marmalad	le .10	.15	.12	.12	-	-
POTATOES	6.32	5.91	6.88	6.29	168	3.75
PULSES and NUTS m/	.34	. 40	.21	.34	148	.23
Pulses	.29	. 35	.17	.28	175	.16
TOMATOES AND CITRUS FRUIT	1.07	1.58	1.08	1.28	70	1.82
Tomatoes <u>n</u> /	.54	.74	.31	. 56	64	88
Fresh citrus	.52	.80	.74	. 69	78	. 89
FRUIT OTHER than CITRUS n		2.43	1.99	2.60	141	1.85
Fresh, Total	2.36	.60	1.22	1.34	131	1.02
Apples	2.04	. 50	.07	.91	-	-
Other	. 31	.10	1.15	. 43	-	-
Canned o/	.25	. 26	.07	.21	-	.07 p
Dried	.14		.17	.27	142	.19
LEAFY, GREEN and YELLOW						
VEGETABLES n/	2.30	1.35		1.82	198	.92
Fresh	2.02	1.02	1.75	1.54	217 ′	.71
OTHER VEGETABLES n/	1.70	1.71			160	.91
Fresh	1.57	1.54	.64	1.33	158	.84

 $<sup>\</sup>underline{k}/$  Sugar content, including that in bakery products, canned fruits, candy and soft drinks.

p/ Commercial only.

<sup>1/</sup> Purchased as sugar, excluding amounts in foods taken from storage.

m/ Shelled weight of nuts.
n/ Fresh equivalent weight.

Fruit in jam, jelly and marmalade included in "Fruit Other than Citrus" or in "Citrus Fruit".

o/ Farm figures include small quantities of canned and bottled juice.

Table 1.- Weights  $\underline{a}/$  of Foods Consumed per Person per Week, New Brunswick Farm Households,  $1945-46_{v}$  as Compared with Weights Available to Civilians in Canada, Year Ended June  $30_{v}$  1946  $\underline{b}/$  - Continued

	0	Pounds c/			r Week	
	•	Nev	<u>Brunswi</u>			0
	0 0	: Average				
					e: as	
	:November:					
	: 1945 :	1946	:1946		of Canadian	:June 30,
Foods			0 0	0		
		- p <b>o</b> ı	unds -		- per cent -	· pounds ·
Canned vegetables q/	.22	.42	.20	.30	-	.28 <u>p</u> /
GRAIN PRODUCTS r/	5.14	5.28	4.85	5.13	141	3.63
Flours r/	4.62	4.45	4.38	4.49	142	3.16
Bread bought	. 36	.30	.42	.35	-	
Cereals, to cook	.37	.69	. 29	.48	-	-
Prepared	.15	.15	18	.16	-	-
Refined s/	.25	39	.22	.30	***	-
Whole grain s	.27	. 45	. 25	.34	-	-
BEVERAGES t/	.14	.16	.13	.15	56	.27
Tea	.07	.06	.07	.07	100	.07
Coffee	.02	.02		.02	22	. 09
MISCELLANEOUS <u>u</u> /	.23	.26	.23	.24	-	-
Canned soups $\underline{v}$	.11	.12	.13	.12	-	
Number of Households	256	148	236	-	-	-

q/ Both classes of vegetables.

r/ Including flour in purchased bakery products.

s/ Included in "Cereals to Cook" and "Cereals Prepared". See Appendix.

solids as follows: cream, 13 per cent; skim milk and buttermilk, nine per cent; cheese, five per cent; other milk products, three per cent. In Canada as a whole 80 per cent of the estimated milk solids were obtained from whole milk and cream in fluid form, six per cent came from cheese, and 14 per cent from other manufactured derivatives of milk.

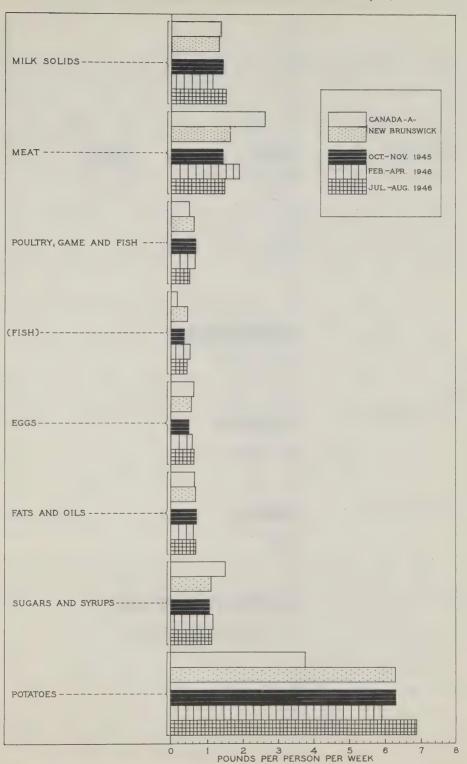
Less than half of the households used skim milk or buttermilk during the survey week in each season. Consumption of these products tended to be lowest in the summer when that of whole milk was highest.

t/ Tea, retail weight; coffee, green beans; cocoa, including chocolate, whole beans.

 $<sup>\</sup>underline{\mathbf{u}}/$  Foods which, and those of which the principal ingredients, are not included elsewhere.

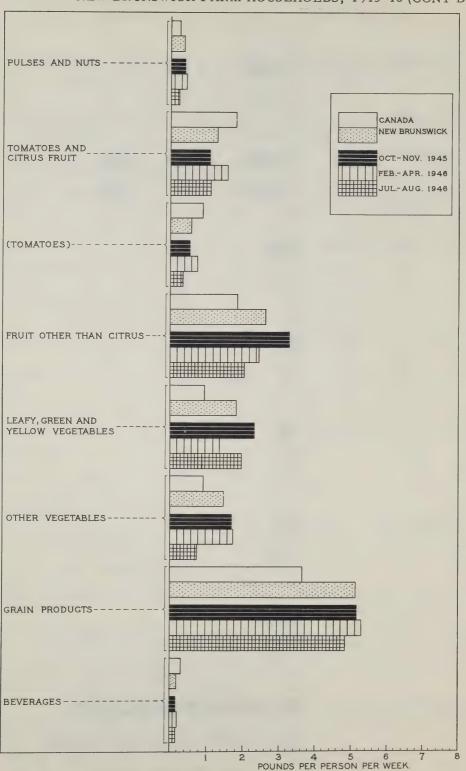
v/ Not included in "Miscellaneous", but only tomatoes of tomato soup included elsewhere.

CHART 2 - WEIGHTS OF FOODS CONSUMED, MEW BRUNSWICK FARM HOUSEHOLDS, 1945-46.



FOODS ARE MEASURED IN THE FORMS NOTED IN TABLE 1.

CHART 2 - WEIGHTS OF FOODS CONSUMED, VEW BRUNSWICK FARM HOUSEHOLDS, 1945-46 (CONT'D).



**9** FOODS ARE MEASURED IN THE FORMS NOTED IN TABLE 1.

Cheese consumption per person on the farms was close to the average for Canada. Processed cheese was bought in greater quantity than cheddar cheese and amounted to 55 per cent of the average weight of all cheese consumed; 41 per cent was cheddar and four per cent was cottage cheese. In each season about half of the households did not eat cheese during the survey week. This does not imply that half of the households never used cheese, as many families who did not eat it during the week of report may have eaten it in other weeks.

The proportion of households reporting consumption of canned milk in the week of survey varied from six per cent in the summer to 18 per cent in the winter.

<u>Meats.</u>— The average consumption per person of meat by the farm households was only 63 per cent of that of Canada as a whole (Table 1) (Chart 2). Heavy consumption of fish to some extent made up for the relatively small quantity of meat eaten. Nevertheless, the weight of boneless meat plus edible poultry, game and fish consumed on the farms, approximating 1.9 pounds per person per week, was only 77 per cent of such consumption in Canada.

The consumption of pork and beef in survey households approached the Canadian average more closely than did that of other meats. The amount of veal consumed per person per week on the farms was negligible. The consumption of lamb and mutton was also low. Less than half as much glandular meat was eaten per person on the New Brunswick farms as in Canada as a whole.

Beef and pork were somewhat more important in the farm meat diet than in that of Canada. The distribution (based on carcass weight) of the meat eaten was as follows, with the corresponding percentages for Canada in brackets: beef, 53 (48) per cent; veal, 2 (10) per cent; lamb and mutton 2 (3) per cent; pork, 41 (35) per cent; and offal, 2 (4) per cent.

Of the retail weight of beef used (excluding canned beef and that in sausages) over half, 52 per cent, was in roasts. Steaks made up 23 per cent, stewing and soup cuts, 17 per cent, hamburger five per cent and corned beef three per cent.

Of the 0.3 pounds of cured pork consumed per person per week nearly two-thirds was salt pork and approximately one-sixth was bacon.

Consumption of meat was highest in the winter, exceeding the lowest, which was that of the fall, by one-third. The slightly higher meat consumption in the summer than in the fall was offset by the greater amounts of poultry and game eaten in the latter season. Since poultry, game and fish are protein foods closely related to meat, the edible weight of the poultry, game and fish consumed was added to the boneless weight of the meat, in order to show the total consumption of this type of food for the three seasons. When this was done the seasons ranked as follows: summer (100 per cent); fall (110 per cent); winter (132 per cent). The winter was the period of highest consumption of both beef and pork, but the least beef per person was eaten in the fall whereas the least pork was eaten in the summer.

Poultry, Game and Fish.— The consumption per person of poultry, game and fish was 25 per cent higher on the farms of New Brunswick than for all Canada (Table 1) (Chart 2). Although the poultry consumption recorded was

little more than one-half that of Canada, the fish consumption was two and two-thirds times the corresponding figure for Canada. As the Christmas season is a period of high consumption of poultry, the lack of reports for that time of year lowered the poultry estimate for the farms.

Averaging the weights consumed in the three seasons in the usual manner it was found that of the total edible weight of poultry, game and fish 22 per cent was derived from poultry, seven per cent from game, and 71 per cent from fish, in contrast to the corresponding percentages for Canada of 53, 13 and 34.

The consumption of poultry was reported by less than one-third of the households in the week of survey in each of the first two seasons and by less than one-eighth in the summer. In the fall the rate of consumption of poultry was more than three times that in the summer.

Fifteen per cent of the households had some game during the survey week in the fall. In the other seasons the amount of game reported was negligible.

Summer was the period of high consumption of fresh fish. Only a little more was eaten in the fall than in the winter. Cured fish was used most in the winter and least in the summer.

Cod was eaten in much larger quantity per person than any other kind of fresh fish in the first two seasons, and in each season its edible weight ranged from 33 to 40 per cent of that of all the fish eaten. In the winter, 20 per cent of the fresh fish consumed was described as "fillets", and part of this was no doubt cod. In the summer, mackerel was as important as cod. Salmon made up 18 per cent of the fresh fish consumed in the summer and 12 per cent in the fall. Alewives (Gaspereau) comprised about ten per cent of the total fresh fish eaten in the fall and winter while herring accounted for 11 per cent of the total in the fall and haddock for 11 per cent in the winter.

Cod formed an even larger part of the cured than of the fresh fish, in terms of the equivalent fresh edible weight, making up 45 per cent of the total in the fall, 71 per cent in the winter and 63 per cent in the summer. Cured herring, principally salted, constituted nearly as much as cod in the fall, 22 per cent in the winter and 30 per cent in the summer.

 $\underline{\text{Eggs}}$ .— The consumption per person of eggs on the New Brunswick farms, averaged over the three seasons with the usual weightings, amounted to less than five per week and was approximately seven-eighths of the Canadian average (Table 1) (Chart 2).

Following the natural supply pattern on farms, egg consumption was lowest in the October-November period and highest in the summer. Winter was intermediate as it included reports for February to April when egg production usually increases.

Fats and Oils.— Consumption in terms of fat content of the principal fats and oils on the farms was remarkably close to that for all Canada (Table 1) (Chart 2). Since butter was rationed during the year of survey, consumption was no doubt lower than normal. Nevertheless, on the farms it was higher than for Canada as some households producing their own

butter did not limit themselves to the amount of the ration.

Of the fat obtained on the farms, butter provided 69 per cent, lard nine per cent, and shortening 22 per cent. For Canada the corresponding proportions were: butter 58 per cent, lard 16 per cent, shortening 22 per cent, and other fats four per cent.

In the winter the amount of butter consumed per person was about two-thirds of that reported in the other seasons. Not only was the butter ration lower in the winter but that season is naturally a period of low milk supply and of low production of butter on farms. Lard and shortening were used in greater amounts in the winter than in other seasons.

Sugars and Syrups.— When the sugar content of the sugars and syrups eaten was computed in terms of sugar itself, it was found that 25 per cent less sugar per person was consumed on the farms than was obtained from such foods by all Canadians (Table 1) (Chart 2). In 1945 and 1946 nearly 40 per cent of the sugar available for consumption in Canada was used in manufactured foods and beverages. 1/ People living in the country did not have the opportunity to buy such products in large quantities, whereas the ration for sugars, syrups, etc. was the same in both rural and urban areas. Under these circumstances, the consumption of sugar on farms might be expected to have been lower than that of the whole population.

On the farms sugar provided 64 per cent of the sugar content of all sugars and syrups as compared with 88 per cent for Canada. The outstanding feature of the farm consumption of this class of food was the heavy use of molasses. It was the source of 33 per cent of the sugar content of such food consumed, whereas over all Canada nine per cent of this content was derived from syrups, molasses and glucose.

Apparently, the sugar ration available for canning in the summer went into current use to some extent. Other sweets were eaten in greater amount in the colder months.

<u>Potatoes</u>.— The much higher consumption of potatoes on the New Brunswick farms than in Canada as a whole was striking, but not unexpected in a province noted for potato production (Table 1) (Chart 2).

The reason for the ten per cent decrease in consumption per person of potatoes from the fall to the winter is not evident. In the summer a large proportion, 65 per cent of the potatoes used, was from the crop of the previous year, and the figure shown may include more waste than in other seasons. The low consumption of root vegetables, for which potatoes may be substituted to some extent, may also have influenced the use of potatoes in the summer.

<u>Pulses</u> and <u>Nuts.</u>— On the New Brunswick farms the consumption of pulses (dried beans and peas) and nuts combined was much greater than the Capadian average (Table 1) (Chart 2). Pulses formed about 72 per cent of the total weight of the pulses and nuts group in Canada, but amounted to 85 per cent on the farms. It was naturally in the cooler weather that baked beans and

<sup>1/</sup> Agricultural Division and Industry and Merchandising Division, Dominion Bureau of Statistics.

soups containing dried legumes were most used.

<u>Tomatoes and Citrus Fruit.</u> Because of its importance as a source of ascorbic acid this group demands special attention. It is therefore of some concern that the average farm consumption was only about 70 per cent of that of Canada which in turn was less than the amount recommended by nutritionists. 1/(1) (Chart 2). It is true that large quantities of potatoes eaten on the farms supplemented the supply of ascorbic acid.

Tomatoes made up approximately 44 per cent on the farms, and 48 per cent in Canada, of the fresh equivalent weight consumed of the whole citrus and tomato group.

Approximately half of the households in each period reported that they had eaten no tomatoes during the week of survey. Canned tomatoes and juice made up approximately 71 per cent of the fresh equivalent weight consumed in the fall period, almost the entire amount in the winter, and 40 per cent in the summer.

The consumption rates of both tomatoes and citrus fruit were highest in the winter. Tomato consumption decreased to a very low point in the summer, probably as a result of limited supplies, whereas that of citrus fruit was well maintained in spite of the availability of other fresh fruit.

Fruit Other Than Citrus.— Those living on farms in New Brunswick received a much more liberal supply of non-citrus fruit than did Canadians on the average (Table 1) (Chart 2). Fruit of this type was eaten in a number of forms. The contribution of the various forms to the fresh equivalent weight of the whole class of fruit were found to be on the average as follows: fresh, 52 per cent; dried, 34 per cent; canned, nine per cent; jam and jelly, five per cent. Dried fruit assumed much more prominence in terms of its fresh equivalent weight than was indicated by its retail weight. For Canada the comparative figures are 55 per cent for fresh, including fruit used in jam and jelly and for home canning, 41 per cent for dried, and four per cent for commercially canned, of the total fresh equivalent weight.

Fresh and dried fruit formed very different proportions of the total weight of the fruit in the different seasons (Table 2). The unusually small apple crop in 1945 may have reduced consumption in the winter season.

The importance of different kinds of fresh fruit varied greatly from one survey period to another. Apples were the principal fruit of this class available in the fall and winter and accounted for over four-fifths in these seasons. In the summer, on the other hand, locally grown berries

Allowances recommended per person per week: 7 oranges (2.2 pounds) or 28 ounces of canned tomatoes (fresh equivalent weight 3.0 pounds).

Department of National Health and Welfare. Nutrition Division. Healthful Eating. Ottawa, 1949 p. 24.

were the major fresh fruits other than citrus used. Bananas were consumed in small quantities in each season. Raisins and prunes used in about equal amounts represented four-fifths of the retail weight of dried fruit.

Table 2.- Percentage Distribution of the Weight a/ Consumed of Fruit Other Than Citrus, by Form, by Season, New Brunswick Farm Households, 1945-46

Percentage of weight						
Farm		: February-April	July-August	. /		
Form	: 1945	: 1946		: b/		
	ě	- per cent -	o 0	Ö		
Fresh, apples	63	21	4	<b>3</b> 5		
other	10	4	58	17		
Dried	16	58	29	34		
Canned fruit and juice	8	12	4	9		
Jam and jelly	3	5	5	5		
	100	100	100	100		
		- pounds -				
Weight consumed per person per week	3.26	2.43	1.99	2.60		

a/ Fresh equivalent weight.

b/ Seasonal averages weighted as follows: fall, 4; winter, 5; summer, 3.

The numbers of households using canned fruit during the weeks of survey were small, 46 per cent in the fall, 39 per cent in the winter and 17 per cent in the summer.

Between 30 and 40 per cent of the households in each season reported consumption of jam, jelly or marmalade.

<u>Leafy, Green and Yellow Vegetables.</u> Consumption per person by the farm households of leafy, green and yellow vegetables, in terms of their fresh equivalent retail weight, was roughly twice the Canadian average (Table 1) (Chart 2).

This class, which made up one-half of all vegetables consumed in Canada, averaged 55 per cent of the total on the New Brunswick farms, when the seasonal consumption rates were given the usual weights. The proportion varied from 44 per cent in the winter to 73 per cent in the summer survey period. The latter percentage may be somewhat high as vegetables of the other group such as corn and cucumbers probably took the place of some green vegetables later in the summer.

At the end of July, consumption of leafy, green and yellow vegetables was increasing rapidly as a wider variety became available in farm gardens.

During the summer survey beans, carrots, peas and greens other than cabbage were the most important vegetables in this class. In other seasons, carrots and cabbage represented nine-tenths of the amount eaten.

Cabbage is a good source of ascorbic acid when raw or lightly cooked. However, 96 per cent of the housewives cooked their cabbage longer than ten minutes; half of them cooked it at least one hour; and four per cent said that they cooked it more than two hours. Only 36 per cent stated that they used the cooking water of vegetables from which some of the vitamins and minerals lost in cooking might have been obtained.

<u>Vegetables Other Than Leafy. Green and Yellow.</u> The average consumption of these vegetables by the farm households exceeded that of Canada by 60 per cent (Table 1) (Chart 2). Turnips amounted to three-quarters of the weight of this group in the fall and winter but a variety of other vegetables took their place to a large extent in the summer.

Consumption of canned vegetables including those canned at home was virtually the same for the farm households as the Canadian average of commercially canned vegetables only (Table 1). About twice the quantity was eaten per person in the winter as in each of the other two seasons. Four-fifths of the total were leafy, green or yellow vegetables.

<u>Pickles.</u>- Pickles were consumed to the amount of 0.10 pounds per person per week averaged over the year. Consumption was highest in the fall.

<u>Grain Products</u>. - The consumption of grain products by the New Brunswick farm households was about 40 per cent greater than the 3.6 pounds, retail weight, consumed per person per week by Canadians generally (Table 1) (Chart 2)

Flour made up the greater part, nearly 90 per cent, of the grain products consumed both on the farms and throughout Canada. 1/ Of the 4.5 pounds of flour consumed per person per week on the farms, less than 0.2 pounds was of the whole grain type which provides more of the B vitamins. Consumption of Vitamin B White or Whole Wheat Flour (Canada Approved) was almost nil. Purchased bakery products including bread accounted for only one-tenth of the flour consumed.

Whole grain cooking cereals were used in larger amount, 0.29 pounds per person per week, than were the more refined cooking cereals 2/ Of the cereals which were bought ready to use, the smaller part, 0.06 pounds per person per week, were of the kinds classified as whole grain.

Little difference appeared in the consumption of grain products in the three seasons. In the summer, consumption was reduced to 92 per cent of that of the winter chiefly because of the decrease in the use of cooked cereals. Most bread was bought per person in the summer and it was purchased by a larger proportion of the households at that season.

<sup>1/</sup> Including flour in purchased bakery products.

<sup>2/</sup> Whole grain cereals were defined as those containing at least 0.4 mg. of thiamine per 1,000 calories, refined cereals were defined as those containing less thiamine.

Other Foods.— On the farms the consumption per person of tea, coffee, and cocoa together, was not much more than half that of Canada (Table 1) (Chart 2). This was mainly due to the relatively small consumption of coffee. On the farms tea consumption was approximately the same as the Canadian rate but that of coffee was less than one-quarter of it.

For the miscellaneous group of foods including seasonings, flavourings, baking accessories and such mixed foods as mince meat, no comparable Canadian per caput consumption figures are published.

Canned soups, other than tomato, were not divided into their various ingredients as in the data for all Canada. However, the quantity involved was only one-tenth of a pound per person per week (Table 1).

<u>Summary.</u> The consumption per person of most vegetable products on the New Brunswick farms compared favourably with that of Canada during approximately the same period. The consumption of tomatoes and citrus fruits was lower, however, and that of tomatoes, a native product, fell below the Canadian consumption by a larger proportion than did the consumption of imported citrus fruit.

In animal products the farm diets were less satisfactory. The consumption of milk solids on the farms was close to that of Canada but egg consumption was not as high. The farm meat consumption was much below the average for Canada and although fish was eaten in large quantities, the weight of boneless meat added to the edible weight of poultry, game and fish consumed per person was less than 80 per cent of the average Canadian consumption of those foods.

### CALORIE AND PROTEIN VALUES OF FOOD CONSUMED

Reduction of the multiplicity of foods consumed to their common nutrient values is an aid in evaluating a diet. Amounts of the nutrients provided per person may be compared with amounts received by other groups whose food has similarly been converted, and comparisons may be made of the nutrient supplies with those required by the individuals of the population in accordance with recognized standards.

Of the food consumed by the New Brunswick farm households only the calorie and protein values were calculated. Calorie and protein values for nearly all foods eaten by Canadians were available and were applicable to the foods as listed in the survey schedule. 1/ The determination of the mineral and vitamin content of the food consumed, on the other hand, was precluded by a lack of knowledge of those values for many foods, or by the wide variations in the values of the same foods under different conditions of production, maturity, storage, preparation and cooking.

Calorie and protein values were computed from tables supplied by the Nutrition Division, Department of National Health and Welfare. The calorie values used were those revised in accordance with the recommendations of the Committee on Calorie Conversion Factors and Food Composition Tables of the Food and Agriculture Organization of the United Nations.

Calories, measuring the energy provided by carbohydrates, fat and protein, indicate the quantity of food obtained. Protein, valuable for body building and repair, is also frequently associated with minerals and vitamins and signifies to some extent the quality of the food.

Adequacy of Calorie Content. The food reported to have been used supplied an average of approximately 3,300 calories per person daily. This compared with the 3,055 calories estimated to have been available per person per day from the food apparently used by all Canadian civilians in 1945.  $\underline{1}/$ 

The calorie requirements of individuals vary with sex, age, weight, and occupation. Estimates of requirements have been prepared on the basis of these classifications. 2/ When individuals in this survey were classified as well as the data permitted, and adjustments were made for waste and inequitable distribution of the food, the acreage requirement amounted to 3,200 calories per person per day. On this basis the calorie supply was 103 per cent of the requirements. Accordingly, it would appear that the New Brunswick farm diet was adequate with respect to calories.

Food Groups as Contributors of Calories. - Of all the food groups, grain products contributed by far the largest quantity of calories, 36 per cent, as compared with 29 per cent for Canada in 1945 (Table 3). Dairy products provided 15 per cent of the calories both on the farms and in Canada generally. The other important sources of calories were fats and oils, meat, poultry, game and fish, sugars and syrups, and potatoes. Each of those groups, except potatoes, contributed smaller proportions to the calorie supply of the farms than to that of Canada.

Table 3.- Percentage Distribution of Calories by Source, New Brunswick Farm Households, and Canada

	0	New Brunswick	0,0	Canada
\$4.		1945-46 a/	0	1945 b/
		- p	er cent	
airy products (excluding butter)		15		15
eat, poultry, game and fish		10		15
ggs		2		2
ats and oils		11		14
ugars and syrups		9		13
otatoes		9		6
ulses and nuts		2 .	•	2
omatoes and citrus fruit		1		. 1
ruit other than citrus		3		2
egetables		2		1
rain products		36	,	29
		100		. 100

a/ Average number of calories per person from each source found by weighting seasonal numbers as follows: fall, 4; winter, 5; summer, 3.

b/ Department of National Health and Welfare. Nutrition Division. <u>Canadian</u> Food and Nutrition Statistics 1935-45, 1946.p. 9.

<sup>1/</sup> Department of National Health and Welfare, Nutrition Division Canadian Food and Nutrition Statistics, 1935 to 1945, 1946, p. 6.

<sup>2/</sup> Department of National Health and Welfare, Nutrition Division, Canadian Nutrition Notes, Vol. 5, No. 39, September 1949.

Some food groups supplied considerably different proportions of the calories in winter and summer. Dairy products, excluding butter, contributed less than 13 per cent of the calories in the winter, but 19 per cent in the summer. Fats and oils, of which butter was the leading item, were also the source of a smaller proportion of the calories in the winter. The percentage from meat, poultry, game and fish was, on the contrary, higher in winter than in summer.

Adequacy of Protein Content.— The average daily amount of protein supplied by the farm food, 108 grams per person, was higher than the 99 grams per person provided by the food of all Canadian civilians in 1945.  $\underline{1}/$ 

The supply of protein was undoubtedly very liberal. The protein requirement for Canada on the basis of the composition of the population and with due adjustment for inequitable distribution was estimated to be only 66 grams per person. 2/When individuals of this study were classified according to age, sex, and the nature of their work it appeared that their mean requirement of protein slightly exceeded the Canadian average. Nevertheless, their supply of protein was at least 50 per cent in excess of their requirements.

Food Groups as Contributors of Protein.— Grain products were the source of 38 per cent of the protein in the farm diet as compared with 34 per cent of all Canadian civilians in 1945 (Table 4). The proportion, 21 per cent, derived from dairy products on the farms was close to the 23 per cent for all Canada, but

Table 4.- Percentage Distribution of Protein by Source,
New Brunswick Farm Households and Canada

	New Brunswick	0 0	Canada
· · · · · · · · · · · · · · · · · · ·	 1945-46 a/	8	1945 b/
	- per	cent	-
Dairy products (excluding butter)	21		23
Meat, poultry and game	14		)
Fish	7		) 27
Eggs Eggs	4		6
Fats and oils	<u>c</u> /		<u>c</u> /
Sugars and syrups	<u>c</u> /		<u>c</u> /
Potatoes	7		4
Pulses and nuts	4		3
Tomatoes and citrus fruit	<u>c</u> /		1
Fruit other than citrus	1		<u>c</u> /
Vegetables	3		2
Grain products	38		34
Other d/	1		<u>c</u> /
	100 .		100

a/ Average amount of protein per person from each source found by weighting seasonal amounts as follows: fall, 4; winter, 5; summer, 3.

b/ Department of National Health and Welfare. Nutrition Division. Canadian Food and Nutrition Statistics, 1935-1945, 1946.p. 10.

c/ Not more than 0.5 of one per cent.

 $<sup>\</sup>overline{\underline{d}}$ / Cocoa, chocolate, gelatine and yeast.

<sup>1/</sup> Department of National Health and Welfare. Nutrition Division. Canadian Food and Nutrition Statistics, 1935-1945, 1946, p. 6.

<sup>2/</sup> Ibid, p. 17.

meat, poultry, game and fish, which furnished another 21 per cent of the farm protein, supplied 27 per cent of that for Canada. The heavy consumption of potatoes raised their contribution to seven per cent of the protein obtained on the farms while in Canada as a whole it was four per cent.

The more nutritive animal protein thus constituted only 46 per cent of the total farm protein as compared with 56 per cent in the whole Canadian diet of 1945. However, the total intake of protein was so great that that of high quality made up approximately 70 per cent of total protein requirements.

The food groups varied little in their importance as sources of protein from season to season. Differences were most marked in the proportions of the protein contributed in winter and summer by dairy products, meat, poultry and game, fish and pulses and nuts.

Concentrated Food Supplements.— While the data available did not permit accurate measurement of the adequacy of the diet of those interviewed with respect to vitamins A and D, information was secured on the extent and use of vitamin concentrates. Vitamin and mineral food supplements used by the farm families interviewed cost about  $13\frac{1}{2}$  cents per week per family. Nearly 90 per cent of this expenditure was on fish liver oil in various forms or on preparations of its constituent vitamins A and D.

The above supplements were naturally purchased in greater amount in the fall and winter than in the summer when sunshine, dairy produce and fresh fruit and vegetables were more readily available. In the first two seasons, expenditures averaged over all the households were 2.4 and 3.4 cents per person per week, respectively, as compared with 0.5 cents in the summer. About one-third of the families reported using these products in the fall and winter during the weeks of the survey.

# RETAIL VALUE OF FOOD CONSUMED 1/

Valued in terms of retail prices ruling at the time of the survey, the food consumed by interviewed families was worth \$3.00 per person per week. There was some variation in this retail value as between seasons, fall and winter being lowest at about \$2.90 and summer highest at \$3.32. The increase in the average value of food consumed from winter to summer was due to the following factors:

1. Increased consumption of certain foods;

<sup>1/</sup> All foods except fluid dairy products were valued at prices in local stores. For fluid dairy products the prices used were estimates of what neighbours might have charged. Thus, fluid whole milk was valued at eight cents per quart as compared with 11 cents for pasteurized, bottled and delivered milk.

- 2. Substitution of more expensive foods for less expensive;
- 3. Increases in prices of various foods.

The relative importance of these factors may be appraised by examination of the major increases and decreases in value by food classes.

Seasonal Variations in Value of Food Classes.— The value of fruit other than citrus consumed per person increased from winter to summer by 20 cents. Apples and dried fruits had been replaced by higher priced berries to a considerable extent. The decrease in dried fruit lowered the fresh equivalent weight of this food class despite a doubling of the quantity of fresh fruit.

The value of dairy products, excluding butter, increased 14 cents from winter to summer, largely as a result of increases in the consumption of whole milk and cream, which were not offset on a retail value basis by the decline in other dairy products.

There was an ll cent increase in the value of vegetables per person per week which appears to have arisen largely from a shift from root to more costly green and leafy vegetables. Farm supplies of the former were generally exhausted by the time of the summer records while an abundance of the latter was available in farm gardens in August.

Substitution of butter in the summer for cheaper fats and oils used in the winter together with price increases led to an eight cent increase in the valuation of fats and oils. Increases of six cents for eggs and for potatoes arose largely from increases in the prices of these foods although quantities eaten also had increased somewhat in summer as compared with the winter.

The only substantial decline in expenditure for a food class appeared with respect to meat, poultry and game. This decline of 17 cents would have been greater but for some increase in the prices of these foods.

Percentage Distribution of Retail Cost of Food.— An analysis of the percentage distribution of foods consumed in terms of retail value is made in Table 5. Meat, poultry and game constituted the most important part of these farm diets, representing one-fifth of the retail value. However, dairy products, including butter, also accounted for one-fifth and even excluding butter, for 13 per cent of the retail value. The two classes of fruit, including tomatoes, together represented 14 per cent of the total value. Another 15 per centwas accounted for by vegetables, potatoes, pulses and nuts taken together. Grain and bakery products were the source of only nine per cent and eggs of six per cent of the value. The remainder (less than one-fifth) was accounted for by fish, fats other than butter, sugars, jam and similar foods, beverage materials and miscellaneous foods.

There was some seasonal variation in the relative importance of these foods. The fall season showed a very similar distribution of cost to the average of the three seasons. In winter a larger proportion of the value of food consumed came from meat, fish and grain products than in the other two seasons. In summer, as might be expected, foods that are more readily supplied by the farm in this season than in winter tended to represent a

larger proportion of the total value. These foods included fluid whole milk, cream, butter, eggs, berries, and certain vegetables.

Table 5.- Percentage Distribution of Foods Consumed, in Terms of Retail Value, by Season, New Brunswick Farm Households, 1945-46

0	October-November	::February-Apri	l:July-Augu	st:
Foods :	20.40		: 1946	
0		0	0	0
		- per cent -		
Dairy products				
(excluding butter)	13.9	12.2	14.7	13.4
Meat $\underline{\mathbf{b}}/$ , poultry and game	19.1	22.5	14.4	19.2
Fish	2.7	3.5	3.1	3.1
Eggs	5.7	5.8	6.8	6.0
Fats <u>b</u> / and oils	10.6	8.1	9.5	9.3
Sugars and other sweets	4.2	5.1	4.7	4.7
Potatoes	6.8	5.7	6.7	6.4
Pulses and nuts	1.1	1.7	1.0	1.3
Tomatoes and citrus fruit	4.1	5.2	4.6	4.7
Fruit other than citrus	9.5	7.4	12.3	9.5
Leafy, green and yellow				
vegetables	4.2	3.5	6.7	4.6
Other vegetables	2.7	2.9	2.0	2.6
Grain products	6.6	7.4	5.6	6.6
Bakery products, purchase	ed 2.4	2.6	2.6	2.5
Other c/.	6.4	6.4	5.3	6.1
	100.0	100.0	100.0	100.0
		- dollar	s -	
Retail value of food per person per week	2.91	2.87	3.32	3.00

<sup>&</sup>lt;u>a</u>/ Seasonal values per person per week weighted as follows; fall, 4; winter, 5; summer, 3.

### VARIATIONS BY CLASS OF HOUSEHOLD

In an effort to relate features of their diet to other characteristics, families included in the survey were classified on the following bases:

# 1. Survey Area;

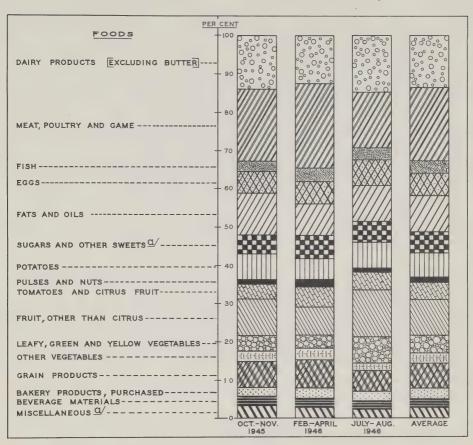
b/ Very fat salt pork excluded from meat and included in fats.

c/ Includes beverage materials, jam, jelly and marmalade, pickles and mincemeat, canned soups, packaged desserts, flavourings and cooking accessories.

CHART 3 - PERCENTAGE DISTRIBUTION OF FOODS

CONSUMED IN TERMS OF RETAIL VALUE,

NEW BRUNSWICK FARM HOUSEHOLDS, 1945-46.



JAM, JELLY AND MARMALADE ARE INCLUDED IN SUGARS AND OTHER SWEETS AND EXCLUDED FROM MISCELLANEOUS.



2. Type of Farm;

3. Value of Home Produced Food as Percentage of Value of All Food;

4. Household Composition;

- 5. National Origin;6. Economic Level;
- 7. Value of Food per Food-Cost Unit per Week. 1/

Detailed analysis of the weekly consumption per food-cost unit for each season on the basis of each of these classifications is provided in the Appendix, Table 21. Many small divergences of individual classes from the survey average are revealed by the data included in that table. No effort will be made here to examine all these divergences and appraise each. Rather, attention will be called to the more important. In doing so it is necessary to set some criteria of importance. Generally speaking, divergences of 15 per cent or more for a class average from the survey average in consumption of a specific food per food-cost unit, if maintained for two of the three seasons, have been considered sufficient in this analysis to indicate a genuine difference in the amount of food consumed. There were some individual foods which were reported by only a small proportion of the families in each of the seasons. 2/For these foods a 15 per cent divergence of a class average from the survey average may arise from accidents of sampling, but for staple foods and broad classes the margins of statistical significance are much narrower. 3/

Accordingly, in the following discussion attention will be called to those instances where some class of families used 15 per cent more or less per foodcost unit of specific staple foods and food classes than the average for all families interviewed. Narrower discrepancies of the diet for specific classes are shown in Table 21. It should be noted, however, that small divergences may have arisen from sampling and reporting rather than from true differences in diet. This is especially true where the class embraced few families and the average weekly consumption of the food item involved was small.

 $\underline{Survey\ Area}. - \ \ In\ planning\ the\ sample,\ five\ areas\ as\ indicated\ in\ Chart\ l$  were selected as representative of all New Brunswick. These areas were:

1. Gloucester A, typical of Kent and Madawaska;

2. Northumberland, typical of Gloucester B and Restigouche;

3. Sunbury, typical of Albert, Charlotte and Queens;

4. Victoria, typical of Carleton;

5. Westmorland, typical of Kings, Saint John and York.

The weighted average value of food consumed per food-cost unit by area ranged from \$2.96 in Gloucester A to \$3.40 in Northumberland.  $\underline{4}/$  No region departed more than 10 per cent from the survey average in any season.

1/ See Appendix, Units of Consumption.

<sup>2/ &</sup>quot;Families" is used here to represent all persons in the home during the week for which data were obtained.

<sup>3/</sup> A difference is statistically significant if the chance of its arising in a purely random sample by accidents of sampling alone is very low.

<sup>4/</sup> These values are higher than those computed on a per person basis since there were fewer food-cost units than persons in all area classes. Conversion may be made to a per person basis by use of Table 22 in the Appendix.

The more important divergences by area from the survey average in amount of food consumed per food-cost unit are indicated in Table 6.

With respect to over-all consumption of dairy products, except butter, all regions were fairly close to the averages obtained for the province but Sunbury and Victoria were low in fluid whole milk consumption, while Gloucester A and Northumberland were low in cream consumption. The range in cream consumption in this classification was such that the high consuming group used more than twice as much per food-cost unit as the low consuming group in each of the three seasons. For fluid whole milk consumption the range of variation was much narrower.

Table 6.- High  $\underline{a}/$  and Low  $\underline{b}/$  Rates of Consumption of Foods in Survey Areas, New Brunswick Farm Households, 1945-46

<u>c</u> /	0	0	e 0	•	e 0
Foods	:Glouceste	r A: Northumb	oerland:Sunbur	y Victoria	:Westmorland
	0	0	ů	0	0
Dairy products					
(excluding butter)					
Meats		High	1 Low		
Poultry, game and fish	High			Low	Low
Eggs				Low	High
Fats and oils					
Sugars and syrups					
Potatoes					
Pulses and nuts Tomatoes and citrus fru	it Low	Uial	ui ah	Low	Uiah
Fruit other than citrus		High	n High	Low	High High
Leafy, green and yellow		•		Low	nign
vegetables	Low				
Other vegetables	2000			Low	
Grain products					

a/ High: greater than 115 per cent of the farm average in at least 2 seasons. b/ Low: less than 85 per cent of the farm average in at least 2 seasons. c/ In the form stated in Table 1.

While Northumberland families definitely ate more meat than those of other areas, even they were low in meat consumption relative to that of all Canada.  $\underline{1}/$  The meat consumption of Sunbury families was lowest of all but the combined amount of meat and game used per food-cost unit was close to the survey average.

Westmorland, while about average in meat consumption, was relatively low for poultry, fish and game, although very near to the Canadian level. The large quantity of fish used in Gloucester A (it exceeded four times the Canadian average on a per person basis) accounted for that areas being high in

<sup>1/</sup> For this comparison conversion of the area figures to a per person basis is necessary and may be done by use of Table 22 in the Appendix.

the poultry, fish and game class.

Fruit and vegetable intake would appear to be much more satisfactory in Sunbury and Westmorland than in Victoria and Gloucester A. The last-named area was particularly low in tomato and citrus fruit consumption, which was only about half that of Sunbury or of all Canada. However, Gloucester A was about average for New Brunswick farm families with respect to other fruits, while Victoria was definitely low.

No important differences related to area are apparent in the consumption of fats and oils, sugars and syrups, potatoes, and grain products, except that the Sunbury and Victoria families used relatively large quantities of whole grain cereals important for their Vitamin B content.

Type of Farm. - Farms included in this analysis were classified as:

- 1. Potato;
- 2. Dairy:
- 3. Mixed:
- 4. Non-commercial, higher income;
- 5. Non-commercial, low income.

Farms for which total sales of agricultural products in 1944 amounted to at least \$600 were classed as commercial and the first three types listed are included in this classification. The first two types derive their names from the fact that on such farms over half of the gross return from agricultural products was derived from the enterprises specified. On mixed farms no one agricultural enterprise accounted for over 50 per cent of such gross returns. Those non-commercial farms on which gross family income was at least \$900 in 1944 were classed as "higher income", while the remaining farms were classed as "low income".  $\underline{1}/$  On many non-commercial farms a substantial portion of the family income was derived from other sources such as forestry or fishing.

Farms of certain types tended to be concentrated in certain areas. Thus 18 of the 20 potato farms were in Victoria County, and three-fourths of the dairy farms as well as 13 of the mixed farms were in Westmorland. Another eight of the mixed farms were in Sunbury. In Gloucester A, 80 per cent of the farms included in the sample were of the non-commercial low income class.

As might be expected, there was some association between type of farm and total retail value of food consumed. In each season the mixed farms had the highest value of food consumption and each of the three commercial classes was equal to or above average for the surveyed farms as a whole (Table 7).

 $<sup>\</sup>underline{1}/$  \$899 was the mean gross family income for non-commercial farms as computed from the survey data.

Table 7.- Retail Value of Food Consumed per Food-Cost Unit per Week as a Percentage of the Farm Average, by Type of Farm, by Season, New Brunswick Farm Households, 1945-46

	•	0	0
	:October-November	: February-April	: July-August
	Q 0	0	o ¢
		- per cent -	
Type of Farm			
Potato	107	107	99
Dairy	113	101	105
Mixed	114	127	109
Non-commercial,		,	
higher income	91	98	99
Non-commercial,			
low income	99	95	98
		- dollars -	
New Brunswick	3.05	3.08	3.48

The more important divergences of the diet from the survey average associated with type of farm are summarized in Table 8. The most striking feature of the diet revealed in this table is that both dairy and mixed farm families were relatively high in their consumption of fruits and vegetables, whereas potato farms were low. The potato farmers had a relatively high consumption of tomatoes which would somewhat offset the low intake of other fruits and vegetables. Nevertheless, the combined tomato and citrus fruit consumption of the potato farmers was only about two-thirds of the recommended allowance. For the non-commercial low income class, quantities consumed of these foods were less than half of the recommended amounts.

The dairy and mixed farm groups consumed more eggs per food-cost unit than others. However, on all types of farm, average egg consumption in each season was equal to or in excess of the recommended allowance of three eggs per person per week.

The potato and dairy farm families used more whole grain per food-cost unit than the other groups. Strangely, the potato farmers were heavier consumers of cream and butter than the dairy farmers. Most of the former marketed little or no cream and consequently tended to use home produced cream and butter more freely.

Table 8.- High <u>a</u>/ and Low <u>b</u>/ Rates of Consumption of Foods by Groups Classified by Type of Farm, New Brunswick
Farm Households, 1945-46

,	0	0	0 0	0	
Foods c/	:Potat	o:Dair	y:Mixed:	Non-commercial:	Non commercial
	0	0	0 0	higher income:	low income
	0	0	0 0	0	
Dairy products					
(excluding butter)					
Meats					
Poultry, game and fish	Low	Low			
Eggs	Low	High	High		
Fats and oils		Low			
Sugars and syrups		High			
Potatoes			High		
Pulses and nuts					
Tomatoes and citrus					
fruit		High			
Fruit other than citrus	Low	High	High		
Leafy, green and yellow					
vegetables		High	High		
Other vegetables	Low		High		
Grain products					

a/ High: greater than 115 per cent of the farm average in at least two seasons. b/ Low: less than 85 per cent of the farm average in at least two seasons. c/ In the form stated in Table 1.

The relatively high retail value of food consumed on mixed farms was reflected in their high consumption of a wide variety of foods. In contrast, the non-commercial groups were close to the average of all of the farms surveyed with respect to every food class. Nevertheless, the non-commercial low income group was relatively high in use of fish and low in use of tomatoes on a per person basis.

Retail Value of Home Produced Food 1/ as a Percentage of That of all Food. This classification was set up in an effort to cast some light on the relationship between home production of food and the quality of the diet. Three classes were established with the following proportions of the value of their food produced at home:

- 1. Less than 40 per cent;
- 2. 40 to 59 per cent;
- 3. At least 60 per cent.

The proportion of families in these groups varied by season, with a tendency for a greater proportion of the food consumed to be produced at home in the

I/ Including self-supplied foods such as fish and game and foods of which the principal ingredients were home produced, e.g., jam made on the farm from home grown fruit.

fall and summer than in the winter.

There was no clear-cut relation between the proportion of food consumed produced at home and the cost per food-cost unit, but the consumption of certain classes of food appeared to be closely related to home production as is indicated in Table 9. It is quite significant that the middle range group had no sharp departures from average in the consumption of the main food groups or even of staple foods.

The consumption of dairy products in general increased as the proportion of home produced food in the diet increased.

With respect to meats, there was a tendency for beef to be replaced by poultry, game and fish in the fall and summer seasons, as home production of food increased. Farmers seldom butcher a beef in summer unless they intend to sell the greater part of it.

Turning to fruits and vegetables it is natural for those who produce most of their food at home to be relatively low in consumption of those items not readily grown on their farms. Thus they were low in fruits not locally produced. Their low level of tomato consumption in the summer was no doubt related to the time of the survey which was completed by the middle of August. On the other hand, their consumption of root vegetables in the fall and winter was relatively high.

Table 9.- High <u>a</u>/and Low <u>b</u>/Rates of Consumption of Foods by Groups Classified by Value of Home Produced Food as a Percentage of the Value of All Food, New Brunswick Farm Households, 1945-46

c/	Value of Home Produced Food of Value of All Food	· ·
Foods	: Less than 40 : 40-59	: 60 or more
Dairy products		
(excluding butter)	Low	
Meats	High	
Poultry, game and fish		High
Eggs		
Fats and oils		
Sugars and syrups		
Potatoes		
Pulses and nuts	High	Low
Tomatoes and citrus fruit	High	Low
Fruit other than citrus		
Leafy, green and yellow ve	retables	
Other vegetables	, ·	High
Grain products	•	nign

 $<sup>\</sup>underline{a}/$  High: greater than 115 per cent of the farm average in at least 2 seasons.  $\underline{b}/$  Low: less than 85 per cent of the farm average in at least 2 seasons.  $\underline{c}/$  In the form stated in Table 1.

Number and Age of Children.- The diet desirable for a family depends on the number and age of the children in it. Small children require more milk, but less potatoes, vegetables, grain products, meat, fats and sugars than adults. Differences in diet associated with family composition may be determined by quite different factors, however, such as need for stretching the food dollar to feed more mouths, and the number contributing to the family income.

For analysis of food consumed on the basis of family composition, households in the survey were classified as those with:

- 1. No children 1/;
- 2. 1 or 2 children under 13 years of age;
- 3. More than 2 children under 13 years of age;
- 4. 1 or 2 children 13 years of age or over;
- More than 2 children, at Least 1 in each age group.

These classes embraced about 95 per cent of the families in each season. The remaining families were excluded from this analysis as they did not constitute sizable classes.

There was a definite tendency for the retail value of food eaten to be higher per food-cost unit in families with no children or only one or two under 13 years of age (Table 10). This is natural since there are more earning or producing units per food-cost unit in such families.

Table 10.- Retail Value of Food Consumed per Food-Cost Unit per Week as a Percentage of the Farm Average, by Household Composition, by Season, New Brunswick Farm Households, 1945-46

Number and age		rember : Fe		ril:July-Augu
of children a/	: 1945	0	1946	: 1946
	<b>9</b>	0		0
		- per c	ent -	
None	108		122	110
l or 2 under 13 years	108		113	108
More than 2 under 13 years	98		97	94
1 or 2, 13 years or over	101	•	95	97
More than 2, at least 1 in each age group	92		89	95
		- dol1	ars -	
New Brunswick	3.05		3.08	3.48

a/ 18 years of age or under.

Families with no children or one or two small children were relatively high in their consumption per food-cost unit of several classes of food and low in none (Table 11). On the other hand, those families with more than two children, at least one in each age group, were low in the quantities

<sup>1/</sup> All persons over 18 were counted as adults.

eaten of beef, tomatoes and citrus fruit, and vegetables classed as "other".

Table 11.- High a/ and Low b/ Rates of Consumption of Foods by Groups Classified by Household Composition, New Brunswick Farm Households, 1945-46

	0	. Nu	mber and age of	children <sup>c/</sup>
	•		0	: More than 2,
d/	s 6	1 or 2	: More than: 1	or 2 sat least 1 in
Foods	: None :	under 13	:2 under 13:13 o	r over: each age group
		,		
Dairy products (excludi		)		
Meats	High			
Poultry, game and fish	High			
Eggs		High		
Fats and oils				
Sugars and syrups			High	
Potatoes				
Pulses and nuts			Low	
Tomatoes and citrus				
fruit	High	High		Low
Fruit other than	111 911	111 911		Low
citrus				
Leafy, green and	Uiah	Uiah		
yellow vegetables	High	High		¥
Other vegetables	High	High		Low
Grain products				

a/ High: greater than 115 per cent of the farm average in at least 2 seasons. b/ Low: less than 85 per cent of the farm average in at least 2 seasons.

The maldistribution of tomato and citrus fruit consumption on the basis of family composition is particularly serious. Families with more than two children were the lightest users of these foods and consumed on the average 1.1 pounds per person per week in contrast to the recommended amount, irrespective of age and sex, of 2.2 pounds of citrus fruit or 3.0 pounds of fresh equivalent weight tomatoes. Families with no children had the heaviest consumption of these foods, viz., 1.8 pounds per person per week.

Families with no children and those with one or two small children had not only the highest consumption rates of tomatoes and citrus fruit combined but of other fruits and vegetables except potatoes and pulses.

The situation with respect to certain animal protein foods is also worthy of attention. Families with no children consumed the greatest quantity of meats, poultry, game and fish per food-cost unit whereas those with one or two small chidren included the most eggs in their diet.

A more satisfactory diet of families with one or two small childrenthan with one or two o'der children is evident from data in Table 21 as well as Table 11. This difference may signify that the younger families have been more influenced

c/ Eighteen years of age or under.
d/ In the form stated in Table 1.

by literature and educational work on the composition of a healthful diet than the older families. Other reasons for this difference may have been related to economic status and other factors. Also, among families with young children, there was a tendency for the smaller families to have a better quality diet.

National Origin. - Almost 50 per cent of the families included in the survey were of British ancestry and over a third of French ancestry. The remainder fell into a number of groups including mixed descent. The families of French ancestry generally had a lower cost diet than those of British origin, the averages being \$2.87 and \$3.54 per food-cost unit, respectively.

Related to the higher retail value of food consumed, the British families ate a greater quantity of many foods per food-cost unit than the French (Table 21). A major exception to this was fish, of which the French group consumed about 40 per cent more per food-cost unit. Many of the French families lived near the sea-coast and could readily obtain fish.

There was little difference related to national origin in quantities consumed of total dairy products including butter, pork, eggs, sugars and syrups, potatoes, pulses and nuts, and total grain products. Thus, the sharpest differences in the diet were found in fruits and vegetables. The French households consumed less than half as much fresh citrus fruit as the British households per food-cost unit and were also low in tomato consumption. The differences with respect to other fruits and vegetables were less marked.

Economic Level. - The general economic position of a family influences its eating habits. In the general questionnaire used in the first survey period, data were secured on a variety of factors related to the economic status of interviewed families. From these data, where sufficiently complete, an index was obtained of the economic level of each household. 1/ On the basis of the index thus developed, households were ranked and classified according to rank into three groups, low, medium and high, of approximately equal size. This provided a basis for estimating the effect of economic well-being on food consumed.

As might be expected, weekly value of food consumed increased as economic level rose. Using weighted averages of the three seasonal figures, this increase was from \$2.90 to \$3.60 or 24 per cent.

With so great an increase in total expenditure on food there is an associated tendency for those with a low economic level to be "low" in their intake of many foods, especially of the more expensive type, and for those with a high economic level to be "high" in amounts consumed.

The variations in food consumption associated with economic level were generally within major food classes rather than between them. Thus, of major food classes only consumption of tomatoes and citrus fruit and green, leafy and yellow vegetables showed a strong response to economic level. Consumption of both these food classes increased rapidly as the level rose. A similar response by beef consumption appeared while fish

Mrs. Flora Shefrin developed the method used in this study to measure economic level.

consumption declined as the economic level rose. Canned fruits and vegetables were among other foods eaten in greater quantity per food-cost unit as the economic position improved. Further detail on variations of diet associated with economic level may be obtained through study of Table 21.

Value of Food per Food-Cost Unit. - There was a wide variation in the retail value per food-cost unit per week of the diets studied. While some of this variation is undoubtedly associated with the tendency of certain individuals to under - or over - estimate the quantities of food eaten in their households, much of it is related to a genuine variation in diet. To probe the relation between the retail value of the food consumed and its composition, the households providing data were sorted into the following classes according to the value of food per food-cost unit per week:

- 1. less than \$2.00;
- 2. \$2.00 to \$2.99;
- 3. \$3.00 to \$3.99;
- 4. \$4.00 or more.

The first of these four classes was the smallest, including only 13 families in the winter. Some individual households shifted among these classes by season so that the higher value classes increased in relative size in the summer survey when the average value of food consumed increased.

The money value of a diet may be lowered by:

- 1. Reduction in the total amount of food consumed;
- 2. The substitution of cheaper foods for more expensive.

With few exceptions, the quantities of specific food classes and foods increased as the value per food-cost unit increased (Table 21). Canned milk, skim, and buttermilk, all minor food items, varied erratically in relation to this factor. Consumption of grain products and of their major component, flour, was highest for the group with lowest food cost in the fall season but not in the other seasons. On the basis of a weighted average the consumption of even these products showed an upward trend as the value of the diet increased. With consumption of every major food group increasing with the value of all food consumed it is obvious that the intake of total food and of all basic nutrients did likewise.

Nevertheless, there were considerable changes in the composition of the diet; as the cost per food-cost unit increased. These changes are summarized in Table 12.

The proportion of the food dollar devoted to tomatoes and citrus fruit, fruit other than citrus, and leafy, green and yellow vegetables more than doubled as the value of food consumed increased from less than \$2.00 per week to \$4.00 or more. These foods, generally considered essential for bulk, minerals and vitamins, have a low calorie content and consequently are not satisfying. Additional amounts of these foods in the diet therefore do not result in the curtailment of the consumption of other foods to a sufficient extent to prevent the cost of all food consumed from rising.

Table 12.- Percentage Distribution of the Retail Value of the Foods Consumed, by Value of Food per Food-Cost Unit per Week, New Brunswick Farm Households, 1945-46

•	Value	of food per fo	ood-cost unit	per week
Class of food :Less		2.00:\$2.00-2.99		
6 0		° c	0 0	
		- per	cent -	
Dairy products				
(excluding butter)	14.5	14.8	13.5	11.8
Meat, poultry and game	16.1	18.3	18.9	21.5
Fish	2.9	3.2	3.2	2.8
Eggs	4.8	6.6	6.4	5.5
Fats and oils	13.3	10.5	9.4	7.4
Sugars and other sweets	5.8	4.6	4.7	4.4
Potatoes	11.1	7.4	6.0	5.0
Pulses and nuts	1.1	1.3	1.3	1.4
Tomatoes and citrus fruit	2.4	3.7	4.4	6.3
Fruit other than citrus	4.9	7.8	10.6	10.6
Leafy, green and yellow				
vegetables	2.0	3.9	4.4	5.8
Other vegetables	2.4	2.1	2.5	3.2
Grain products	10.6	7.6	6.5	5.0
Bakery products, purchased	2.3	2.2	2.3	2.9
Beverage materials	3.1	2.6	2.4	2.2
Canned soups, jam, jellies				
marmalade, and pickles	1.7	1.4	1.3	1.2
Miscellaneous	1.0	2.0	2.2	3.0
	100.0	100.0	100.0	100.0

The next largest increase in relative importance of a food class as the value of food consumed increased was in meat, poultry and game. These are generally high priced foods relative to calorie content.

The increases cited above were necessarily counterbalanced by decreases in the relative importance of certain food classes as value per food-cost unit increased. However, for only two food classes, potatoes and grain products (excluding purchased bakery products) were the percentages in the high value group as low as half the percentages in the low value group. These foods, especially grain products, are a relatively cheap source of calories.

The rather sharp decrease in the relative importance of fats and oils, dominated as they were by butter, is somewhat striking. This may be associated with rationing which reduced the consumption of butter by many families. Also butter is a complement to bread and flour and consumption varied little with the cost of diet. Other dairy products also decreased in proportionate value as the value of the diet per food-cost unit increased.

#### HOME PRODUCED FOOD CONSUMED

Food produced at home is of economic benefit to the farm family if conditions of climate and soil and other factors entering into costs of production are such that it can be produced at lower cost than the purchase price. If money is not plentiful the smaller cash outlay needed for the food produced at home may be a great advantage. Further, home production of food may provide by-products, e.g., buttermilk, at a very low cost. Some food may be obtained from wild sources, by labour which would not otherwise be "gainfully" employed. Then the value of home produced food is an outright addition to the family income.

If home production lowers the cost of certain foods, more money may be available for other food. On the other hand, especially when cash income is low, an abundant home supply of foods which have low market value may result in those foods being eaten almost exclusively. This could lead to a diet rich in some nutrients but lacking in others. However, many Canadian farm products provide a wide variety of nutrients, e.g., tomatoes, cabbage and turnips supply not only ascorbic acid but other vitamins and minerals. Refined purchased foods, such as white sugar, are more likely to be concentrates of a few nutrients.

The full nutritive value of foods is obtained when they are consumed immediately at their source, whereas losses may occur in purchased foods through passage of time and by certain methods of storage. On the other hand, farm produced food kept for later use may lose both palatability and nutritive value if the storage facilities are poor.

The convenience of having a store of food on hand is an advantage of home production, particularly where centres of supply are not very accessible.

Proportion of Food Produced at Home. Of the food eaten on the New Brunswick farms, that produced at home was worth, at the retail prices prevailing, \$1.60 per person per week in the fall, \$1.38 in the winter and \$1.78 in the summer. This represented 52 per cent of the average value of all food consumed, although the proportion produced at home was somewhat lower in the winter than in the other seasons.

Almost, if not entirely, 100 per cent of the weight of the milk, cream, skim milk and buttermilk consumed on the farms at each season was produced at home (Table 13). Thus an average of 90 per cent of the milk solids, excluding butter, was home produced. This percentage was lowest in winter when less milk and cream and more canned milk and cheese were used per person.

A considerably lower proportion of the meat than of the dairy products consumed was home produced. Even in winter, when it is relatively easy to keep meat and more farmers butcher, only 62 per cent of the meat consumed was obtained from the farms, while the weighted average for the three seasons was 45 per cent. Ninety per cent or more of the poultry eaten in each season was home produced. Game, since it was not purchased, was considered to be home produced. Only one-fifth of the fish consumed was self-supplied.

Table 13.- Proportion Home Produced  $\underline{a}/of$  the Weight  $\underline{b}/of$  Food Consumed, by Season, New Brunswick Farm Households, 1945-46

	Percentag	e of weight	consumed	0 6	Average
:Octobe		:February-Ap	oril:July-Augu	st:Pounds	per:Percentag
	1945	: 1946	: 1946	:Person	per:of weight
Foods :				: Week o	c/ :consumed
		- per cent -	-	- pounds	per cent
DAIRY PRODUCTS					
(excluding butter) d/	93	84	94	1.20	90
Fluid whole milk	98	97	99	7.27	98
Fluid cream	100	100	100	. 49	100
Skim and buttermilk	100	99	99	1.36	99
MEATS e/	33	62	23	. 74	45
Beef and veal	19	57	8	.31	34
Lamb and mutton	73	100	23	.02	60
Pork (excluding lard)	43	67	52	. 39	58
POULTRY	91	90	* 96	.24	91
GAME	100	100	100	.06	100
FISH <u>f</u> /	28	18	. 18	.10	21
EGGS	83	84	85	. 47	84
FATS AND OILS g/	56	43	57	.34	51
Butter	72	66	72	.39	70
Other fats	9	. 10	10	.02	9
Other rats	7	. 10	. 10	.02	7
SUGARS AND SYRUPS h	0 <u>i</u> /	2	1.	.01	1
POTATOES	98	93	88	5.88	93
PULSES AND NUTS j/	43	27	23	.11	32
Pulses	51	31	29	.11	37
TOMATOES AND CITRUS FRUI	<u>k</u> / T 17	5	4	.11	8
Tomatoes	35	* 11 .	16	.11	.19
FRUIT OTHER THAN CITRUS	k/ 55	17	52 ~	1.03	40
Fresh, apples	77	23	68	.58	64
Other	8 .:	6	76	23	53
WEGETARI EC. L./					
VEGETABLES <u>k</u> / Fresh, leafy, green an	ıd				
vellow	. 94	. 83	89	1.38	90
Other	95	. 88	80	1.19	90

Table 13.- Proportion Home Produced a/of the Weight b/of Food Consumed, by Season, New Brunswick Farm Households, 1945-46 - Continued

		ntage of v			et : Pounds	Average per:Percentage
	: 1945	to the coluc	1946	: 1946		per: of weight
Foods	0	0		0	A .	c/ : consumed
		- per ce	ent -		- pounds	per cent -
GRAIN PRODUCTS	<u>i</u> /		1	1	.04	1
the principal b/ Retail weight	d weight.  0.5 per cent.  of nuts.	re home pr	coduced. stated.		and (ii)	foods of which

As might be expected, over four-fifths of the eggs consumed were home produced. Seventy per cent of the butter but only a small quantity of the other fats used was produced on the farms. All sugars and syrups except part of the maple syrup and honey used, were purchased.

Among fruits and vegetables, such items as potatoes, leafy, green and yellow vegetables, root vegetables, apples and berries were dominantly home produced. Nevertheless, three-quarters of the apples eaten in winter were purchased. Indeed, only 17 per cent by weight of the non-citrus fruit consumed in the winter was self supplied. In the other two seasons with fresh fruit available this proportion rose to over 50 per cent. Dried fruits in terms of fresh equivalent weight accounted for much of the quantities purchased. Only one-fifth of the tomatoes eaten and less than two-fifths of the pulses were grown at home.

In general, the home produced proportion of the retail value of a food class was quite similar to that of the weight. However, in most food classes, there was some difference in the two proportions. This arose from the variation in retail value of products making up the food class; for example, for fruit other than citrus the weighted average of the home produced portion was 40 per cent by weight as compared with 52 per cent by value. This was the sharpest difference appearing in the two ratios for any food class.

Distribution of Retail Value of Home Produced Food Consumed, by Food Groups. - Dairy products, excluding butter, mainly fluid whole milk, accounted for a greater proportion of the value of all the home produced food than did any other main food group, except in winter when the dairy products group was second to meat. (Table 14).

Table 14.- Percentage Distribution of Home Produced a/Foods, in Terms of Retail Value, by Season, New Brunswick Farm Households, 1945-46

		retail value of h		
		er:February-April:		:Average <u>k</u>
Foods	: 1945	: 1946 :	1946	0
		- per cent -	-	
Dairy products				
(excluding butter)	21.9	18.7	24.3	21.4
Meat <u>c</u> /	6.8	25.3	5.1	13.2
Poultry	7.3	6.6	2.6	5.7
Game	3.7	.2	.0	1.3
Fish	1.5	1.2	1.3	1.3
Eggs	8.4	10.5	11.0	9.9
Fats <u>c</u> /	12.0	8.8	11.7	10.7
Honey, sugar and syrup	.0	.5	.2	. 3
Potatoes	12.2	11.1	10.9	11.5
Pulses	.6	.6	.2	.5
Tomatoes	1.6	.3	.3	.8
Fruit	9.7	3.5	16.8	9.4
Leafy, green & yellow				
vegetables	6.7	5.3	11.0	7.4
Other vegetables	4.8	4.6	2.8	4.1
Grain products	.1	.2	.1	.1
Jam, jelly and pickles	2.7	2.6	1.7	2.4
	100.0	100.0	100.0	100.0
		- dollars	; -	
Retail value of home pro foods per person per we		1.38	1.78	1.55

a/ Including (i) self-supplied foods such as fish and game, and (ii) foods of which the principal ingredients were home produced.

Meat together with poultry and game contributed nearly one-third of the value of the home produced food in the winter but considerably smaller proportions in the other seasons.

The total value of the home produced food (excluding jam and jelly) ranged from four per cent in the winter to 17 per cent in the summer of the total value.

 $\begin{tabular}{ll} Vegetables, potatoes, fats, eggs and fruit each represented about ten per cent of the value of all home produced foods. Leafy, green and yellow vegetables \\ \end{tabular}$ 

b/ Seasonal values per person per week weighted as follows: fall, 4; winter, 5; summer, 3.

c/ Very fat salt pork excluded from meat and included in fats.

and fruit were particularly high in value in the summer; the low season for fats was the winter owing to decreased production of butter; and the value of eggs in relation to that of all home produced foods was lowest in the fall in spite of the higher price of eggs at that season.

Survey Area. There was little variation in the value but a somewhat wider variation in the proportion of home produced food by survey area (Table 15). Gloucester A households equalled those of Sunbury in value, but were relatively high in proportion, of home produced food since the total value of food consumed in Sunbury was higher. In Gloucester A the amounts consumed per food-cost unit measured in terms of retail value of home produced meat, poultry, and game, butter and fruit were high in comparison with the average amounts of those foods consumed on all the farms. In the summer wild fruit accounted for much of the value of the fruit eaten.

Northumberland families, while relatively low in proportion of the diet home produced, were near average in value of home produced food for all major food classes. Actually, this area was relatively high in consumption of purchased foods, but average in home produced.

The consumption of home produced food was about average in Westmorland, except in the summer, when it was low. Families in this area ate relatively little home produced meat and poultry in all seasons, and of vegetables in summer. Interviewing in Westmorland for the summer was completed a week before it was begun in other areas, and as the summer progressed a larger variety of locally grown garden produce became available.

Table 15.- Proportion Produced and Consumed at Home of the Total Value of Food, by Survey Area, New Brunswick Farm Households, 1945-46 a/

	0000	Total Food per food-cost	: Home productions: food-cost	
Survey Area		unit per week	: weel	ζ
		- dollars -	- dollars - 1	per cent -
Gloucester A		2.96	1.74	59
Northumberland		3.40	1.61	47
Sunbury		3.35	1.74	52
Victoria		3.03	1.62	54
Westmorland		3.28	1.56	48
New Brunswick		3.17	1.64	52

a/ Seasonal values weighted as follows: fall, 4; winter, 5; summer, 3.

Type of Farm.— The range in value of home produced food for this classification was from \$1.44 to \$2.11 although the range in proportion home produced was relatively narrow (Table 16). On the mixed farms, the total value of food consumed as well as the value of the home produced food was greatest. The non-commercial higher income farms provided a sharp contrast in this respect.

There is nothing surprising about the relatively large amount of food

home supplied on mixed farms. Such farms generally produce a considerable variety of animal products for market with the result that they tend to have a supply of these foods in all seasons. Fruits and vegetables are also frequently raised for sale and so may be available for home use. Thus, mixed farms were at least average in home production of every class of food and well above average in some.

Table 16.- Proportion Produced and Consumed at Home of the Total Value of Food, by Type of Farm, New Brunswick Farm Households, 1945-46 a/

Type of farm	Total food per food-cost unit per week	: Home produce : food-cost u : week	
	- dollars -	- dollars	per cent -
Potato	3.32	1.76	53
Dairy	3.36	1.63	48
Mixed	3.74	2.11	56
Non-commercial, higher income	3.04	1.44	47
Non-commercial, low income	3.08	1.66	54
New Brunswick	3.17	1.64	52

a/ Seasonal Values weighted as follows: fall, 4; winter, 5; summer, 3.

The potato farm families were only slightly above average in consumption of home produced foods, both in terms of value and proportion of total diet. As compared with other groups, they produced for home consumption a large quantity of dairy products, especially cream, and of meat, but a small amount of fruit,

The fact that the summer records were taken in July on three-quarters of the dairy farms may have lowered the value and proportion of home produced foods by reducing vegetables in summer on those farms. The value of home produced butter consumed on such farms was less than 50 per cent of average in all seasons. This anomaly probably arose from the subsidy available on cream sold for butter. Dairy farmers thus bought most of their butter as the saving on making it was very small. Other classes of farmers likely had little cream for regular sale.

The 22 cent difference in the value of home produced food between the two non-commercial groups may have arisen largely from the fact that the men in some households of the higher income group were fully employed in occupations other than farming. The difference was built up from consumption of larger quantities of most classes of home produced food and was not concentrated in any two or three.

National Origin. The average values per food-cost unit of home produced food for British and French households were very close, \$1.72 and \$1.60 respectively. However, as the French families had

a lower value diet they produced 56 per cent of their food at home, as compared with 49 per cent for the British families.

In view of the small difference in total value of home produced foods, differences with respect to specific foods and food classes were generally small. The French families ate somewhat more home produced butter while the British families had more home produced vegetables, jam, jelly and pickles.

Economic Level. - As economic level improved both the total value and that of the home produced food consumed increased, so that the proportion self supplied varied little (Table 17). Meat, poultry and game contributed the most of any one food class to the differences in value of home produced food between economic levels but some tendency for use of home produced dairy products, excluding butter, eggs, vegetables (other than potatoes and pulses), jam, jelly, and pickles to increase with economic level was evident.

Table 17.- Proportion Produced and Consumed at Home of the Total Value of Food, by Economic Level, New Brunswick Farm Households, 1945-46  $\underline{a}/$ 

		**
Economic level	Total food per food-cost unit per week	: Home produced food per : food-cost unit per : week
	- dollars -	- dollars per cent -
Low Medium High	2.90 3.06 3.60	1.51 52 1.63 53 1.83 51
New Brunswick	3.17	1.64 52

a/ Seasonal values weighted as follows: fall, 4; winter, 5; summer, 3.

Meat, poultry and game and vegetables other than potatoes and pulses accounted for the greater part of the increase in value of home produced food as economic level rose. Dairy products, excluding butter, and eggs also contributed to this increase.

<u>Value of Food per Food-Cost Unit</u>. There was a sharp rise in the value of home produced food with a rise in the value of the entire diet (Table 18). Nevertheless, the proportion of food home produced did not rise.

Table 18.- Proportion Produced and Consumed at Home of the Total Value of Food, by Value of Food per Food-Cost Unit per Week. New Brunswick Farm Households, 1945-46 a/

Value of food per :	Total food	: Home produced food per
food-cost unit :	per food-cost	food-cost unit per
per week :	unit per week	: week
	- dollars -	- dollars per cent -
Less than 2.00	1.76	.95 54
2.00 - 2.99	2.54	1134 53
3.00 - 3.99	3.42	1.72 50
4.00 or more	4.74	2048
New Brunswick	3.17	1.64 52

a/ Seasonal values weighted as follows: fall, 4; winter, 5; summer, 3.

All classes of home produced food showed some tendency to increase as the value of the diet increased. The widest differences in value of home produced food between the two extreme classes of households, were those of vegetables (other than potatoes and pulses), meat, poultry and game, and fruit. Differences in the value of dairy products and eggs were not as great, while those of fats and potatoes were still lower.

Comparison of Retail and Farm Values of Home Produced Foods.— While various methods might be used to estimate the saving on home produced foods none of them are very satisfactory. Some of those foods which loom most important seldom have established markets in rural areas, largely because most farmers produce them at home rather than buying them. For fruits, vegetables, cream and even meats, quality comparisons are difficult. Sale values for some of these foods are equally difficult to establish as it may not be practicable to sell them at all. Nevertheless, data are available on the margins between farm and retail prices for certain representative foods.

The following analysis provides an estimate of how much more farmers might have paid for their home produced food if purchased at urban retail prices than they might have realized from its sale. This difference is referred to as the "saving" on the use of home produced food, but does not measure the gain or loss actually arising from home production. Some foods may have been produced by these farmers at costs exceeding urban retail prices and others at costs substantially below estimated farm prices.

For this analysis, farm to retail margins on certain foods, as computed in a recent study, have been used (Table 19). The value of each of these

Table 19.- Comparison of Retail and Farm Values of Certain Home Produced Foods Consumed by New Brunswick Farm Households, 1945-46

	:Value of home:
	:produced food: : : Proportion of
	consumed per: Saving per: value of home
	:person per : Margin :person per :produced food
Foods	: week a/ : 1946 b/: week : consumed a/
	- cents per cent - cents per cent -
Milk c/	42 49.4 20.7 <b>2</b> 3.3
Butter	19 24.1 4.6 10.5
Meats d/	31 35.1 10.9 17.6
Eggs	15 23.3 3.5 8.7
Potatoes	18 37.6 6.8 10.0
Total	125 46.5 70.1

a/ Weighted average values are those which are expressed in percentages in Table 14 except that:

fluid milk products are valued at urban rather than estimated farm purchase prices, with consumer subsidy included in fluid milk price, and
 cream subsidy is added to the price of butter.

b/ Hillhouse, F.W. and Schrader, F.M., <u>Marketing Margins for Selected Canadian Agricultural Products, 1935-49.</u> Canada Department of Agriculture. Ottawa. Economics Division, 1950. p. 8.

c/ Includes skim milk and buttermilk.

 $<sup>\</sup>underline{d}/$  Includes poultry and game. Margin applicable to beef assumed to apply to all meats.

home produced foods was multiplied by its margin to determine the "saving" from its production. The sum of such savings was 46 cents and the retail value of the foods involved amounted to 70 per cent of that of all the home produced food. Assuming that the margins on other home produced foods were the same proportion of their retail value, the total saving amounted to 66 cents per person per week. This represents 20 per cent of the total value of the food consumed when computed as indicated in Table 19 footnote a.

#### HOME PRESERVED FOODS

The advantages of home preservation of food in addition to those of home production include;

- 1. Food is usually preserved during season of .lowest price;
- 2. Products which might otherwise be wasted are used;
- 3. Preservation is usually carried out at the stage of best development of the product, especially of home grown foods;
- 4. Consumption of preserved foods generally occurs at a time when fresh foods of the same kind are scarce.

Quantity Consumed.— Over half of all canned and bottled foods consumed listed in Table 20 were preserved from foods that were either produced at home or secured from wild sources. Also, some food was purchased for home canning but the quantity was less than ten per cent of all canned foods consumed. Another method of home preservation of food is the curing of meats and fish. Two-thirds of the cured pork and one-quarter of the cured fish consumed were home preserved. Very small quantities of these foods were purchased for curing.

Table 20.- Retail Weight of Home Preserved a/Foods Consumed per Person per Week, New Brunswick Farm Households, 1945-46

	:October-November:	February-April:	July-Augus	st:Average
Foods	: 1945 :	1946 :	1946	: b/
	•	- pounds -		
Beef, corned c/	.01	.01	00	.01
Pork, cured c/	. 21	. 22	14	20
Meat, poultry and gar	ne o			
canned	.07	.07	.08	.07
Fish, cured <u>d</u> /	.06	09	.03	.07
canned	.01	.00	.00	.00
Tomatoes, canned	.03	.05	.02	.04
Fruit, canned	.14	.17	.03	.13
Jam and jelly	.06	.09	。09	.08
Vegetables, canned	.16 ⋅	. 22	.07	.16
Pickles	.12	.06	.03	.07
Total	. 87	.98	. 49	. 83

a/ From home produced foods.

b/ Weights used: fall, 4; winter, 5; summer, 3.

c/ Carcass weight.

d/ Fresh filleted weight.

The total consumption of food produced and processed at home varied from a half pound in summer to a pound in winter per person per week (Table 20). The value ranged from 13 cents in the summer to 21 cents in the winter and did not exceed eight per cent of that of the entire diet in any season.

Cured pork was the largest single home preserved item in the diet, averaging one-fifth of a pound per person per week. Home cured fish was also relatively important. Of the canned meat, poultry and game eaten 89 per cent was preserved at home, but home canned fish (11 per cent of the amount consumed) was a negligible item. Heaviest consumption of these items occurred in the winter although one might expect it in summer, when fresh meats are hard to keep.

Home canned vegetables and tomatoes together amounted to another fifth of a pound per person per week. As might well be expected the heaviest consumption of these foods occurred in winter. This was also true of home canned fruits, although the quantities used were smaller.

Slightly over half of the canned fruits and vegetables, other than tomatoes, were preserved at home from self supplied produce, as well as three-quarters of the jam, jelly and pickles. However, only 14 per cent of the canned tomatoes eaten were home preserved.

Variations in Value of Home Canned Foods by Class of Household. - 1/Of any survey area class, Sunbury families ate home "canned" foods of the greatest value per food-cost unit and Northumberland of the least in all seasons. The former ate about twice as much home canned foods as the latter. Sunbury was especially high and Northumberland low in consumption of canned fruits and vegetables. Households in Gloucester A and Victoria ate much more home canned meat, poultry and game than did those in the other areas.

Variations in value of home canned foods per food-cost unit related to type of farm were as sharp as those related to survey area. Dairy farm households ate twice as much home canned foods as did those in the non-commercial higher income class. Dairy and mixed farm households used the most home canned fruits and vegetables while potato and non-commercial low income farm families ate the most canned meat, poultry and game. The dairy farm group used the most home made pickles, jam and jelly.

As might be expected the amount of home canning of meats, fruits and vegetables all increased rather sharply as the proportion of all food produced at home increased. However, there was little variation in consumption of jam, jelly and pickles related to this factor.

Families with more than two children tended to use less in terms of value of home canned foods per food-cost unit than other families. As might be expected, such families ate relatively less pickles. They also ate somewhat less than average of other home preserved foods, except jam and jelly.

In this section the term "canned" is used to include such foods as jam, jelly and pickles. Details of values will be supplied on request.

The value of the home canned food eaten per food-cost unit by the British families exceeded by 80 per cent that eaten by the French households in the winter but was about the same in the other seasons. Nevertheless, the French families ate about twice as much home canned meat, poultry and game as the British in each season.

Use of home canned meat, poultry and game declined as economic level rose but that of home preserved fruits and vegetables of all types increased.

The retail value per food-cost unit of each group of home canned foods, except meat, poultry and game, rose as the value of all food consumed increased.

### SUMMARY

- 1. Consumption rates of dairy products and of fats and oils by farm families in New Brunswick in 1945-46 was about equal to the Canadian averages and egg consumption was not far below that of all Canada. The farm families consumed considerably less meat, poultry, sugars and syrups, tomatoes and citrus fruit but much more fish, potatoes, pulses, fruits other than citrus, vegetables other than tomatoes, and grain products than Canadians on the average.
- 2. The supply of calories from the farm diets was adequate while that of protein exceeded estimated requirements by about 50 per cent.
- 3. At retail prices prevalent in New Brunswick at the time of the survey, food eaten by farm families was worth about \$3.00 per person per week.

  Meat, poultry, and game accounted for one-fifth of this cost, and dairy products (including butter) for another fifth. All animal products together were the source of half the value. Of the remainder over half was accounted for by various classes of fruits and vegetables. Grain products, including bakery products, and sugars and other sweets represented ten and five per cent, respectively, of the value.
- 4. About half, in terms of retail value, of all the food eaten was produced at home or obtained from wild sources. The saving resulting from this extensive home production, measured as the difference between farm prices and urban retail value, amounted to approximately one-fifth of the total retail value of all food consumed.
- 5. Dairy products had the largest relative value among home produced foods. Meat, potatoes, fats (including butter), eggs, fruit, leafy, green and yellow vegetables and poultry followed in order. No other class of food accounted for more than five per cent of the value of all home produced foods. Over three-quarters of the dairy products (excluding butter), poultry, game, eggs, potatoes, vegetables, and berries eaten were self supplied.
- 6. Consumption of food preserved from self supplied products varied by season from one-half pound to one pound per person per week. Its retail value was about five per cent of that of all food consumed.

- 7. Of households classified on the basis of survey area, Gloucester A and Victoria families had the diets of lowest value but had the highest proportion of home produced food. The variation by area in consumption of tomatoes and citrus fruit was especially wide. The Sunbury diets provided twice as much per person of these foods as did those of Gloucester A and their consumption of them was also low in Victoria.
- 8. Among households classified by type of farm the highest value of food consumed appeared on the mixed and dairy farms. Persons in the two non-commercial groups were average or lower in their consumption of every major food except fish. The mixed farm households had the highest value and proportion of home produced foods, but those on dairy farms used the most home canned foods.
- 9. As the proportion of the food which was home produced increased so did the consumption of  $milk_0$  cream, poultry and vegetables classed as "other".
- 10. Among household composition classes the diet of families with no children or only one or two young children had the highest money value. Both classes had relatively high rates of consumption of tomatoes and citrus fruit and the two main groups of vegetables. In addition, families with no children ate more meat, poultry, game and fish, and those with one or two small children more eggs per food-cost unit than did other classes.
- Il. The value of food consumed per food-cost unit averaged much higher for British than for French families. With respect to food classes the sharpest difference appeared with tomatoes and citrus fruit, of which the British families ate 90 per cent more than the French. The French families produced a greater proportion of their food at home.
- 12. As the economic level rose, the retail value of food consumed per food-cost unit rose sharply. There was a corresponding increase in the quantity eaten of many foods. However, the proportion produced at home of the food used varied little with economic level.
- 13. When the farm households were classified on the basis of the value per food-cost unit of food consumed, quantities eaten of almost every specific food increased with the value of the diet. Potatoes, grain products, fats and oils, and beverage materials accounted for a much larger proportion of the value of the low cost diets than of the high. The values of home produced foods increased with the total value of the food eaten per food-cost unit but the ratio of the former to the latter was somewhat greater for the two low value than for the two high value groups.

#### APPENDIX

<u>Survey Periods.</u>- In Table 21 a detailed summary of the average amounts eaten by all househols interviewed and by each class is presented for each of the three survey seasons. Throughout this table, seasons are numbered with one representing October-November, two February-April, and three, July-August.

Columns two to four of this table indicate the number of households in each class supplying data in each season. Some of the seven classifications do not include all families interviewed, because insufficient data were obtained for classifying some households and others were in classes too small to yield reliable estimates of average consumption. All classes included in this analysis consisted of more than 12 households in every season.

The next five columns indicate the distribution of the winter and summer reports by month. The timing of the winter data no doubt affected the amounts reported eaten of milk, cream, butter and eggs, since they became more abundant on farms as spring approached. Likewise, there was some tendency for an increased variety of garden vegetables and berries to be available in August as compared with July.

Units of Consumption.— The food expenditure of persons of different age, weight, sex and occupation are not equal. Consequently, in the groups of survey households, especially those divided on the basis of number and age of children, equal numbers of individuals did not have equal food requirements. Accordingly, for purposes of comparison of groups a unit of consumption (the food-cost unit) was chosen for which the food requirement would be as nearly equal as possible in each group. As, with the notable exception of milk, an increased need for food of one kind is usually associated with increased need for others, the total cost of the required food of an individual reflects his requirement for most foods. The Bureau of Home Economics of the United States Department of Agriculture developed the following scale of values for different individuals in terms of the value of the food of a moderately active man, the "food-expenditure unit".  $\underline{1}/\underline{}$ 

# Equivalents in expenditure units

Age group:	Men and boys	Women and girls
75 years or older: <u>a</u> /		
Moderately active	0.90	0.85
Active	.95	.90
20-74 years:		
Moderately active	1.00 <u>b</u> /	.92
Active	1.12	1.00
		- Continued -

a Including adult invalids of any age.

b/0.95 if working less than 20 hours weekly.

United States Department of Agriculture. Bureau of Home Economics. Family Economics Division. Consumer Purchases Study. Farm Series Family Food Consumption and Dietary Levels. Five Regions. Washington, D.C. 1941. p. 372. (Misc. Pub. 405) (Published in co-operation with the Work Projects Administration).

## Equivalents in expenditure units (Cont'd)

	Men and boys	Women and girls
16-19 years	1.14	1 01
		1.01
14-15 years	1.12	1.01
13 years	1.07	.97
12 years	1.03	.93
ll years	. 98	.90
10 years	.95	. 88
9 years	.91	. 84
8 years	. 87	. 79
7 years	. 80	. 73
6 years	.73	.67
5 years	.65	.63
4 years	.61	. 60
3 years	.59	. 58
2 years	. 55	.55
· 1 year	.54	.54
Under 1	.51	.51

The food-cost unit of Table 21 is the same as the food-expenditure unit described above, and the above scale for conversion of persons to units was used.

Data on consumption of fluid whole milk, skim milk and buttermilk, canned milk, tomatoes and citrus fruit are given on a per person per week basis, while consumption of all other food classes listed in Table 21 are presented on a per food-cost unit per week basis. Data on total dairy products, excluding butter, are presented on both bases.

Table 22 may be used for conversion of the data given in Table 21 on a per food-cost unit basis to a per person basis. For example, Gloucester A households consumed 1.59 pounds of dairy products (excluding butter) per food-cost unit per week in the fall. In that period and area the households of the survey comprised 409.5 persons or 386.3 food-cost units 
According-ly, the consumption of dairy products (excluding butter) per person per week was  $(\underline{1.59} \times \underline{386.3})$  or 1.50 pounds.

<u>Conversion Factors</u>.— In order to group foods into a few general classes for Table 21 and similar analyses, it was necessary to convert the weights of foods of the same type to a common basis. The basis used for each class is indicated by a footnote. The conversion factors used for dairy products, except ice cream, poultry, game, fats and oils except very fat salt pork, honey, syrups, canned tomatoes, tomato juice, canned fruits and fruit juices and canned vegetables were obtained from a report of the Combined Food Board. 1/

Combined Food Board. Special Joint Committee. Food Consumption Levels in the United States, Canada, and the United Kingdom. United States Department of Agriculture. Production and Marketing Administration, Washington, D.C. 1946. (Third Report).

For meats, except beef sausage, sugars in many manufactured foods, nuts except peanuts, grain products and beverages, United States Department of Agriculture conversion factors were used. 1/ For the remaining foods conversion factors were obtained from Canadian government departments.

Classification of Vegetables.— The two main classes of vegetables, "leafy, green, and yellow" and "other" are roughly separated on the basis of their pro-vitamin A content. In this report the former class, providing most vitamin A, includes: asparagus, green beans, beet tops, broccoli, brussels sprouts, cabbage, carrots, chinese cabbages, green celery, wild greens, kale, lettuce, parsley, green peas, peppers, pumpkin, sauerkraut, spinach, yellow squash, swiss chard. "Other" vegetables include some which are green or yellow in appearance, e.g., corn, cucumbers and turnips. Dried peas and beans, since they are pulses, are excluded from the main group.

Classification of Grain Products.— Grain products are classified by the Nutrition Division, Department of National Health and Welfare as refined and whole grain according to their thiamine content as follows: refined, less than 0.4 mg. thiamine per 1,000 calories; whole grain, at least 0.4 mg. thiamine per 1,000 calories. In Table 21 the term "cereals" denotes grain products other than flours. Such cereals are classifed in two ways, by the form in which they are purchased as well as by their thiamine content.

<sup>1/</sup> United States. War Food Administration. Office of Distribution.

Conversion Factors and Weights and Measures for Agricultural Commodities and their Products. Section A - Conversion Factors, Washington, D.C. March, 1944.

Table 21.- Weights g/ Consumed per Week of Certain Dairy Products, Tomatoes and Citrus Fruit per Person, and of Other Foods per Food-Cost Unit b, by Class of Household, by Season g/, New Brunswick Farm Households,1945-46

	Class of Household				New Brunswick	Survey Area Cloucester A Northwaberland Subuy Subuy 5 Victoria 6 Westmorland	Type of Farm 7 Potsto 8 Datry 9 Mixed	10 Non-commercial, higher income		Proportion of Food Home Produced 12 Less than 40 per cent 13 40 - 59 per cent 14 60 per cent or more	Number and Age of Children 15 None 16 1 or 2 under 13 17 More than 2 under 13 18 1 or 2, 13 or over	19 More than 2, at least 1 in each age group	National Oxigin 20 British 21 French	Economic Level 22 Low 23 Medium 24 High	Value of Food per Food-Cost   Unit per Week   Cost than \$2.00   Cost than \$2.00   Cost \$3.00   \$3.99   Cost \$4.00   \$43.99   Cost \$4.00   Cost \$4.
		-		1 - :	256	138826	20 24 27	22		55 101 100	81 34 30	62	126 91	68 67 68	28 84 8
	Number of Households		Season 2	- number -	148	20 20 35 35 35 35	14 15	28	99	42 70 36	41 19 16	44	99	45 37 39	13 60 38 37
		.			236	56 57 58 64 64	19 20 24	25	26	95 86 97 98	93 31 30	62	1111 87	62 63 62	17 62 74 83
	_		Feb.		47	61 42 62 40 26	5 8 8 8	20	49	36 50 61	36 26 26 27	22	49	54 36	45 43 43
	Dist	0	Season 2	d I	38	33 39 43 43	25 22	36	36	33 33 33	32 50 25	36	33	31 30 21	20 44 40 38
	Distribution of of Reports by Month		Apr.: July	per cent	15	6 9 5 31	7 13 21	14	15	12 17 0	17 16 14 19	14	12 18	18 16 13	35 13 0 19
	n nth		S	1	22	000000000000000000000000000000000000000	0 1 75 46	27	16	43 26 18	31 33 30 30	16	33	19 22 45	24 29 38 17
			Aug. :		73	000000	100 25 54	73	84	57 74 82	69 67 64	84	75	81 78 55	76 71 62 83
	DAIR (Exclud		1		1.42	1.50 1.36 1.07 1.57 1.46	1.68 1.65 1.44	1.31	1.45	1.14	1.46 1.45 1.48 1.65	1.35	1.45	1.33 1.56 1.47	.84 1.31 1.63 1.76
	DAIRY PRODUCTS (Excluding Butter)	00000	2		1.15	1.14 1.05 1.20 1.04 1.32	1.19 1.31 1.34	1.08	1.12	.94	1.34 1.10 1.06 1.05	1.16	1.22	1.05	.86 1.05 1.22 1.50
	S (ri		3	"	1.51	1.51 1.51 1.47 1.51 1.53	1.65 1.62 1.46	1.47	1.51	1.44	1.62 1.39 1.46 1.46	1.53	1.56	1.45	.94 1.29 1.57 1.85
Po	Fluid		1		8.17	8.50 7.98 5.74 8.53 8.76	9.20 10.43 7.72	8.03	7.84	6.55 8.09 9.07	8.22 9.20 9.57 9.58	16.9	8.14	7.15 8.83 8.71	4.45 8.21 8.94 9.53
Pounds Per Person Per Week	Fluid Whole Milk	Soacon	2		2.97	5.52 6.41 6.10 4.46 7.40	5.30 9.05 4.92	5.04	6.04	4.72 6.86 5.87	6.28 6.28 6.38 5.01	5.80	5.77	5.60 5.18 6.51	4.76 5.20 6.47 7.84
Person Pe	, Ma		3	- spunod -	8.89	9.04 9.22 7.27 6.96 10.06	7.39 10.37 8.73	9.39	8.88	8.79 8.46 9.39	8.56 8.18 9.72 8.98	8.85	8.60	8.58 8.37 9.39	6.09 7.85 9.58 10.07
r Week	Skim		1		1.65	2.64 1.73 .62 .88 1.32	.53 .56 1.62	1.56	2.50	.58 1.05 2.80	.94 .36 .82	3.09	1.40	1.87 2.31 .95	1.43 0.85 2.25 2.46
	Skim and Buttermilk	Season	2		1.62	2.12 .65 .98 1.61 1.61	1.40	1.87	1.63	1.13 1.23 2.97	1.80 1.25 1.02 2.15	1.77	2.22	1.93	1.33 1.96 1.44 1.24
	11k		3		09°	.67 .72 .58 .58	.57	.53	.63	.24	.35	92.	.71	.57	.09
			-	••	90.	1.06.22.06.	00.00.	.08		.00	.04	90.	80.	.03	.05
	Canned Milk	Season	2		.21	. 14 . 18 . 08 . 08	.12	.35	.25	.36	2; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;	. 25	.16	.25	.12 .17 .36 .16
	k		3		.05	90.00.00.00.00	.00.00.	.02	*00	.16	.07	.07	.07	0.04	00.00.00.00



Table 21. Weights a/Consumed per Week of Certain Dairy Products, Tomatoes and Citrus Fruit per Person, and of Other Foods per Food-Cost Unit  $\underline{b}$ /, by Class of Household, by Season  $\underline{c}$ /, New Brunswick Farm Households, 1945-46 - Continued

Table 21. Weights g/ Consumed per Week of Certain Dairy Products, Tomatoes and Citrus Fruit per Person, and of Other Foods per Food-Cost Unit b/, by Class of Household, by Season g/, New Brunswick Farm Households, 1945-46 - Continued

Class of Household	Pork : (Excluding	Pork (uding Lard)	d) £/	POULT	POULTRY, GAME and FISH g/		P	Poultry h/	1		Fish g/			EGGS		FATS AND OILS	D OILS		Bu	Butter	
		Season 2	3	-	Season 2	3		Season 2	3		Season 2	3		Season 2		1 8	Season 2	2	2	Season 2	3
									od -	- spunod		**			••			••			
l New Brunswick	.53	.80	.45	.73	.72	. 53	.36	.29	.12	.39	.56	.47	.51	.61	.67	.78	.68	.74	89.	.47	99°
Survey Area 3 Colorester A 4 Subbury 5 Victoria 6 Westmorland	.52 .66 .40 .50	. 94 . 74 . 64	.56 .38 .74 .30	.98 .86 .47	.89 .78 .79 .47	.92 .34 .26	.58 .24 .39	.28 .25 .48 .26	.12 .08 .24 .07	. 559 . 23 . 24 . 32	.74	.83 .30 .14	.55 .37 .32	. 525 . 555 . 68	.70 .68 .72 .47	.84 .90 .66 .75	.64 .65 .67 .69	.70 .88 .69 .74	.55 .55 .63	.42 .48 .51	.69 .75 .64 .70
7 Potato 6 Barn 6 Dairy 9 Mixed	.55	.66	.24	.82	.48	.33	.44	.28 .27 .54	.35	.30	. 42	.13	.63	.63	. 46 . 84 . 69	.81	.48	.64	.58	.54	.73
10 Non-commercial, higher income	.53	.75	.40	.58	17.	.53	.22	.23	.10	.39	.56	.48	.47	.58	.65	.73	.64	.73	19.	.41	
11 Non-commercial, low income	.57	.94	.46	62.	.82	99.	.38	.29	60°	.47	.68	.61	.53	.53	89.	. 82	.64	.74	69°	.45	
Proportion of Food Home Produced 12 Less than 40 per cent 13 40 - 59 per cent 14 60 per cent or more	.61	.78 .86 .70	.52	.65	.63	.43	.18	.20	.07 .07	.32	.65 .36	.40 .43	.52	.51	.74	.75 .74 .85	999	.78	.61 .66 .73	.43	
Number and Age of Children 15 None 16 1 or 2 un'r 13 17 More than 2 under 13 18 1 or 2, 13 or over	.55	.90 .83 .78	.50 .50 .37	.97 .78 .54	.69 .76 .75	.63 .44 .29	.46 .25 .42 .42	. 25 . 32 . 48	.05	.44 .33 .30	.55 .50 .57	.41 .42 .23	.53	.88 .74 .55	.62 .82 .69	.78 .90 .90	.90	.79 .80 .72	.67 .68 .68	.50 .60 .48	
<pre>19 More than 2, at least 1 in each age group</pre>	.50	.74	. 44	89.	99.	.61	.35	.25	.14	.41	. 53	33	.47	.47	.61	.73	.61	.72	.67	.42	
Mational Origin 20 British 21 French	55.	.90	.45	.74	.72	.42	.35	.45	==	.32	.47	.36	.51	.63	.68	.78	99.	.78	.67	.46	
Economic Level 22 Low 23 Medium 24 High	.49 .66 .47	1.02	. 42	.68	.78 .66 .64	.50	.28	.223.3	.10	.49	. 55	.51 .45	55.55	.45	.63 .67 .68	.82 .81	.61 .66 .78	.75	. 68 . 70 . 70	.55	
Value of Food per Food-Cost Unit per Week 25 Less than \$2.00 26 \$2.00 - \$2.99 27 \$3.00 - \$3.99 28 \$4.00 or more	.32 .44	.61 .84 .95	.18 .46 .58	.33 .55 .78	.40 .64 .80 1.03	.28	.08 .20 .41	.12 .16 .30 .70	.00 .07 .13	.26 .36 .43	.33	. 28 . 44 . 48 . 54	.19 .44 .61	.31 .55 .86	.28 .61 .74	.64 .70 .83	.47 .61 .75	.51 .69 .78 .83	.68 .58 .80	525.	

Table 21.- Weights g/Consumed per Week of Certain Dairy Products, Tomatoes and Citrus Fruit per Person, and of Other Foods per Food-Cost Unit 1/2, by Class of Household, by Season 2/, New Brunswick Ferm Households, 1945-46 - Continued

Table 21.— Weights a/Consumed per Week of Certain Dairy Products, Tomatoes and Citrus Fruit per Person, and of Other Foods per Food-Cost Unit  $\underline{b}$ , by Class of Household, by Season  $\underline{c}$ , New Brunswick Farm Households, 1945-46 - Continued

			[II.	Fresh			Pounds	Pounds per Food-Cost	Unit	per Week	PAFY GREE	2						
Class of Household		Apples			Other			Dried Fruit			and YELLOW VEGETABLES e.	, e	IA	OTHER VEGETABLES	, e		GRAIN	7/
	1	Season 2	8		Season 2	2	1	Season 2	3		Season 2	6	1	Season 2	m	-	Season 2	3
								- spunod -							••			
New Brunswick	2.14	.54	90.	.33	.11	1.20	.15	.47	.18	2.41	1.45	2.03	1.78	1.83	92.	5.39	5.66	5.08
Survey Area Oloucester A Northumberland Victoria Westmorland	2.59 2.25 1.40 1.31 2.32		.03 .05 .05 .03	.16 .40 .39 .31	.03 .16 .15 .07	1.35 1.42 1.04 .78 1.16	.20 .23 .23 .24 .25	.43 .42 .49 .60	.14 .20 .11	2.20 2.01 2.04 2.02 3.36	58 1.55 2.17 1.53 2.32	1.69 2.75 2.88 2.34 1.38	2.32 1.50 1.42 1.05	2.07 2.22 2.02 1.04	.80 1.12 1.19 .36	6.01 5.26 4.74 5.63 4.97	5.75 5.58 5.41 6.02 5.44	5.30 5.15 5.72 5.10 4.57
Type of Farm Potato Dairy	1.48 2.37 2.29	.41 .68 .87	.03	.40	.110	.79 .89 1.46	.12	.56	.28	2.18 2.93 3.02	1.74 2.29 2.66	1.99	1.24 2.29 1.73	1.06	.43	5.51 5.48 4.70	5.84 4.66 5.59	4.64 5.07 5.25
higher income	2.12	.53	.04	.26	.13	1.18	.12	.49	.20	2.11	1.02	2.15	1.65	2.16	29.	5.87	5.92	5.11
Non-commercial, low income	2.45	.50	.10	.35	*00	1.33	.12	.48	.14	2.36	1.18	1.81	2.00	1.95	.80	5.28	5.75	5.24
Proportion of Food Home Produced Less than 40 per cent 40 - 59 per cent 60 per cent or more	1.58 1.68 2.89	.53	.04	.47	.11	1.18 1.14 1.27	.22 .17	.51	.22	2.21	1.34 1.42 1.63	2.28 2.11 1.82	1.38 1.61 2.14	1.69 1.73 2.21	.78 .72 .79	5.05	6.08 5.40 5.66	5.01 5.26 4.94
Number and Age of Children None 1 or 2 under 13 More than 2 under 13 1 or 2, 13 or over	1.82 2.39 2.38 2.48	. 78 . 66 . 57 . 35	.14	.27 .39 .20	.16 .11 .11	1.33 1.60 .95 1.04	.16 .19 .11	.58 .41 .50	.19	2.28 3.18 2.28 2.60	1.99 2.46 1.67 1.28	2.36 2.01 1.94 2.04	1.94 2.19 1.62 1.85	2.39 2.60 1.44 1.44	.94	4.80 4.79 4.80 5.11	5.64 5.73 5.94	5.45 4.65 4.51 4.74
each age group	2.07	.43	.04	.32	90.	1.18	.13	.46	.16	2.14	66°	1.83	1.50	1.59	.62	6.23	5.88	5.22
<u>National Origin</u> British French	2.24	. 59	.12	.43	.16	1.25	.21	.42	.23	2.46	1.80	2.74	1.72	2.07	1.00	5.09	5.37	5.23
Economic Level Low Medium High	1.99 2.80 2.18	.61 .44 .59	.08 .10 .06	. 28 . 42 . 36	.05	1.20 1.30 1.18	.09 .19	.44 .46	53.	2.33 2.33 2.83	1.11 1.06 2.06	1.29 1.94 2.51	1.95 1.77 1.75	1.78 2.02 1.77	99.	5.54 5.70 5.27	5.88	5.51 5.01 4.94
Value of Food per Food-Cost.  Less then \$2.00 \$5.00 + \$2.90 \$5.00 - \$2.99 \$4.00 or more	1.78 2.72 3.16	.14 .34 .89	.03 .02 .07	.01 .25 .41	.302	.43 .69 1.25 1.94	.04 .09 .16	. 23 . 33 . 33 . 33 . 33	.06 .20 .26	. 83 2.04 2.63 4.07	.20 1.02 1.57 3.02	.63 1.23 1.92 3.41	1.07 1.45 1.88 2.86	1.52 1.32 1.80 3.27	.20 .36 .82 1.27	6.00 5.00 5.47 5.61	5.47 5.28 5.87 6.40	4.84 4.79 4.93 5.63

Table 21. Weights a Consumed per Week of Certain Dairy Products. Tomstoes and Citrus Fruit per Person, and of Other Foods per Food-Cost Unit  $\underline{\mathbb{b}}$ , by Class of Household, by Season  $\underline{\mathbb{c}}$ , New Brunswick Farm Households, 1945-46 - Concluded

							1	Pounds per Food-Cost Unit per Week	od-Cost	Unit	er Week							-
Class of Household		Flours 1/		В	Bread Bought		Cerea	Cereals to Cook		Cere	Cereals Prepared	per	: Cere	Cereals Refined	a la		Cereals Whole Grain	Grain m/
		Season	en	-	Season	er.	-	Season	6	-	Season	6	-	Season	3	-	Season	0
					1			1	spunoa -	1 0	1			4			4	3
1 New Brunswick	4.84	4.76	4.59	.38	.32	.44	.39	.74	.30	.16	.16	.19	.26	.41	.22	.28	.49	.27
Survey Area 2 Gloucester A 3 Northumberland 4 Surbuy 5 Vitoria 6 Westmorland	5.50 4.22 4.85 4.45	4.92 4.49 4.85 4.59	4.84 4.64 5.19 4.56 4.10	.39 .39	.11 .52 .46 .40	.15 .44 .91 .83	36.09.35	.66 .66 .69 .69	333 33 3	.16 .16 .16 .18	11. 11. 11. 11. 11. 11. 11. 11. 11. 11.	.20 .21 .19 .16	.24 .17 .37	.49 .32 .34 .51	.25 .17 .29	.26 .34 .41	.34	.26 .36 .25 .25 .25 .25
Type of Farm 7 Potato 8 Dairy 9 Mixed	4.76	4.56 3.73 4.80	4.11 4.31 4.70	.42	.51.2.09	. 44.	. 54.	1.09	.30	.21 .26 .16	.19	.23	.32	.60	.25	.38	.60	.34
	5.40	4.77	4.72	.18	. 55	.29	.35	76.	.21	.12	.18	.19	.22	.58	.19	.25	.57	.21
	4.71	5.03	4.74	.36	.20	.38	.42	.57	.32	.15	.15	.18	.27	.35	.23	.31	.37	.26
12 Less than 40 per cent 13 40 - 59 per cent 14 60 per cent or more	4.45 5.06 4.80	5.00 4.49 4.98	4.49	.39	.63	1.00	.43	.93	.33	.16	.15	.23	25	.48	.26	.36	.59	.27
Number and Age of Children   15 None 2   16 1 or 2 under 12   17 More than 2 under 13   18 1 or 2, 13 or over	4.28 4.25 4.25	4.79 5.00 4.28 5.50	4.91 4.17 3.97 4.40	.62 .26 .20	.09	.36	.35	57.	.39	.16 .16 .16	.13 .17 .09	.16 .17 .23 .16	.24	.34	.26 .26 .14	.28 .20 .20	.51	.22
19 More than 2, at least 1 in each age group	5.61	4.85	4.71	.26	.30	.29	.48	.89	.30	.14	.17	.21	.26	.52	.23	.36	.54	.28
National Origin 20 British 21 French	4.47	4.45	4.66	.45	.44	.62	. 36	92.	.36	.17	.16	.21	.30	.32	.24	.35	.60	.33
Economic Level 22 Low 23 Medium 24 High	5.03 5.17 4.59	5.01 4.89 4.12	5.02 4.54 4.38	.19	.34	.30	.35	.70 .76 .87.	.34	.16	.13	.19	.26	.45	.22	.27	.45	.25
Value of Food per Food-Cost. 25 Less than \$2.00 26 \$2.00 - \$2.90 27 \$3.00 - \$3.90 28 \$4.00 or more	5.59 4.54 4.88	4.94 4.48 4.77 5.34	4.61 4.37 4.43 4.99	.36 .45 .49	.24 .36 .47	.28 .26 .41	.32 .42 .56	.41	.24	.09 .15 .19	112	.18	.38	2.2.4. . 4.8. . 4.4.	23 23 28 28	.25	.26 .40 .63	.15 .18 .30
a/ Retail weight except where otherwise stated. b/ Moderately active man. c/l, October-Nevember, 1945; 2, February-April, 1946; 3, July- d/ Milk solids. e/ Fres equivablent weight. Fruit in preserves and vegetables respective classes. L/ Carcass weight. Edible weight of offal included in "Meats." g/ Edible weight. Fresh filleted weight of fish.	stated, iry-April, 194 oreserves and fal included	1946; 3, July-August, 1946 and vegetables in pickles in ded in "Meats." Excluding ver		kles ir	August, 1946. in pickles included in their Excluding very fat salt pork	eir ork.	मन्यन हो व व	Dressed weight, not drawn. Fat content. Including very fat salt pork. Sugar content. Including that in bakery products, preserves, cand Shelled weight of nuts. Including flour in purchased bakery products. Including flour in purchased bakery products. Included in "Cereals, to Cook" and "Cereals, Prepared". (Appendix) Eighteen years of age or under.	ght, not Inclu nt. Inc ght of r lour in "Cereal retail	drawn dding ve luding nuts. purchas ls, to ( value.	not drawn. cluding very fat salt pork. Including that in bakery products, f nuts. in purchased bakery products. eals, to Cook" and "Gereals, Prepar fl age or under.	lt pork akery pi produci "Cereals	oducts,	preserves, red". (Apper	candy .	sud sof	candy and soft drinks.	

Table 22.- Number of Person-Weeks <u>a/</u> and Number of Food-Cost Unit-<u>b/</u>
Weeks <u>a/</u>, by Class of Household, by Season,
New Brunswick Farm Households, 1945-46

Class of Household		tober-: ovember:: 1945::		February- : April : 1946 :	July Augus 1946	t
	Person- Weeks	: Food-Cost: : Unit-Weeks:	Person- Weeks	: Food-Cost : Unit-Weeks:	Person-: Weeks:	Food-Cost Unit-Week
:		:	- nun	mber -		
New Brunswick	1450.4	1384.1	851.8	794.8	1448.4	1382.5
Survey Area						
Gloucester A	409.5	386.3	295.6	274.2	413.6	386.7
Northumberland	310.7	300.2	139.4	130.8	302.4	294.6
Sunbury	152.8	151.4	85.3	80.7	133.1	129.3
Victoria	198.5	188.9	141.5	131.8	207.0	196.8
Westmorland	378.9	357.3	190.0	177.3	392.3	375.1
Type of Farm						
Potato	134.9	130.0	100.5	93.1	150.4	142.0
Dairy	124.0	114.2	84.2	78.5	118.1	112.9
Mixed	139.1	141.9	65.4	64.7	136.5	134.9
	139.1	141.9	00.4	04.1	130.3	134.9
Non-commercial,	0/10	0.40	****		050 5	0040
higher income	361.0	342.4	185.9	175.6	352.7	334.0
Non-commercial,						
low income	554.3	525.0	366.3	337.7	564.6	538.7
Proportion of Food Home Produced						
Less than 40 per cent	288.8	272.2	258.5	237.5	318.5	301.0
40 - 59 per cent	588.3	565.4	386.3	362.0	563.7	539.7
60 per cent or more	573.3	546.5	207.0	195.3	566.2	541.8
Number and Age of Children						
None	279.0	298.8	121.2	125.0	240.7	248.9
1 or 2 under 13	191.3	179.3	92.6	85.5	187.7	175.9
More than 2 under 13	250.5	211.1	163.2	133.6	241.6	204.6
l or 2, 13 or over More than 2, at least 1 in	139.2	143.5	70.0	73.7	155.7	164.9
each age group	518.3	480.8	367.7	340.5	554.2	516.1
National Origin						
	(00.0	/10 4	307.0	205.0	F02 F	F01 0
British	623.2	610.4		295.0	593.5	581.3
French	619.9	567.4	412.5	370.5	641.0	589.0
Economic Level						
Low	386.3	358.8	271.9	251.0	375.3	351.3
Medium	382.8	365.0	226.8	208.9	398.6	378.2
High	391.5	376.7	214.2	204.6	398.0	385.3
Value of Food per Food-Cost Unit per Week						
	101.0	186.2	02.0	0E 4	110 0	114.9
Less than \$2.00	191.0		92.8	85.6	118.0	114.2
\$2.00 - \$2.99	553.6	523.9	379.7	354.2	454.8	434.9
\$3.00 - \$3.99	453.8	436.4	225.6	206.4	462.1	431.7
\$4.00 or more	252.0	237.6	153.7	148.6	413.5	401.7

a/ One week represents 21 meals from the household food supply. b/ Moderately active man. c/ In terms of retail value. d/ Eighteen years of age or under.



